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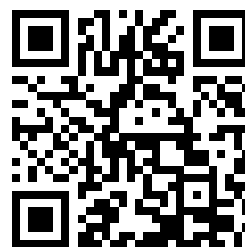
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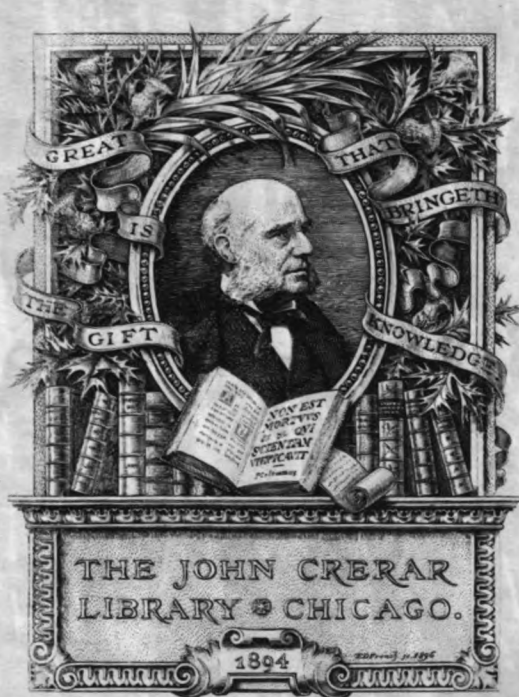
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The Process Engraver's Monthly

The Official Organ of the Federation of Master
Process Engravers.

FOUNDED BY
H. SNOWDEN WARD, F.R.P.S.

VOLUME XXV.
1918.

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1918.

THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

1917 : *A Review.*

THE predominant note in a review of the process trade of 1917 must surely be one of profound thankfulness, for not only have those engaged therein been able to "carry on" with a fair measure of success, notwithstanding the many and serious difficulties brought about by three and a half years of war, but also while in the most trying period the nation has ever known, they find themselves in a sounder condition than they were twelve months ago, and can commence the new year with far more of hopefulness than was the case at the beginning of the year.

It is quite true that the work of the past year has, from time to time, been marked by alternate periods of hope and fear; care and anxiety have been constantly to the fore, and it has been impossible to forecast the course it would take. The path has been difficult to tread, but now that the year has run its course, and we can look back over the road we have travelled, we see there has been much more cause for thankfulness than there has been for anxiety.

Just prior to the commencement of the year the Federation had been successfully launched, and the new scale of prices had been put into force. It was therefore

quite natural that the uppermost thought in the mind of practically every one engaged in process was, What will be its effect upon the trade? Will the Federation idea hold together a body of men who for so long withstood all the wooing of the old Association?—would the members be true to the idea—to themselves, and to their fellow engraver?—would the temptations held out in certain quarters prove too much for the honour of some of those engaged in the craft?—would the stress of circumstances lead some to swerve from the path marked out for them, and to ease prices in certain directions? These and many other questions naturally arose, and there were not a few who prophesied that the effort was foredoomed to failure, as had been the case in so many other instances, and that it would be found impossible to hold all the houses in the country together.

Then there were the demands of the military, which were denuding many of the houses of their labour; the restriction of supplies wherewith to carry on the work of the trade—and lastly the hint that the arrangements come to between the Federation and the Men's Union would not stand the stress of everyday workshop conditions.

THE PROCESS MONTHLY.

With these and the various difficulties incidental to the individual businesses facing process engravers, there can be no wonder that the opening of the year was full of anxiety, and that they started the year's work with as much of misgiving as of hope. They had to tread a path they had never been before—to take a course where the lack of experience might bring them troubles of various kinds that might hold in store a fate for which they were not prepared. No wonder they moved warily!

Well, how has it all worked out? We think there can be but one answer to that question. That is, far better than we ever anticipated, for the following reasons:—

1. The Federation idea is to-day stronger than ever.

2. The price of process work has been raised twice during the year, without in any way causing an undue diminution of the volume of business.

3. Though the military situation is perhaps more difficult than before, yet practically every house has managed, by means of assistance from federated houses, to cope with all work it has been called upon to produce.

4. The metal position, which at one time seemed so serious, has been successfully dealt with by the Federation Committee, who have not had an easy time of it, but have by indomitable perseverance secured enough material to carry the trade through the year.

It may be that here and there a house may have felt it was not getting all it could wish, yet we have not heard of one that has had to refuse orders because it could not secure metal wherewith to execute them.

5. The agreement between the Federation and the Men's Union has worked well,

and bids fair to lead to further improvements, and to become a permanent institution.

6. And lastly, but by no means the least, process engravers have been enabled to put an end to the heavy losses they had been sustaining during the first two or three years of the war, and now have a reasonable prospect of keeping their businesses intact during a period of adversity.

Such, it seems to us, has been the course of events in the trade during the past year, and we feel that such a record calls for the greatest thankfulness seeing that a year that opened so full of doubt and fear has closed with all those doubts and fears dissipated; consequently we take courage from these experiences and look forward to this new year's work more full of hope and confidence than could possibly have been the case had it not been for the grand work done by the Federation.

There has not been much that can be termed new, developed during the year. It is true we have heard from our American brothers of new processes, new screens, new multiple cameras, etc., etc., all of which are designed for some special class of work, but so far they do not seem to have reached this country—nor even come into general use in America—but it is hardly matter for surprise that such should be the case, seeing that so many of the most practical men—men full of mental energy and go—are engaged in the war and have no spare time to develop new ideas; while the men still in the workshops are so fully occupied in producing the necessary work that they find experimenting impossible, even where such work makes a powerful appeal to their professional instincts.

The Annual Meeting of the Federation held in March last was very successful

and brought together men from all parts of the country and completed the work began in the previous November. We earnestly hope the second Annual Meeting will greatly surpass the first. It would be a great thing if all the members of the Federation could be present at that meeting. It would give such a stimulus to the work as would be for the benefit of all.

What of the future? Is it safe to prophesy? The conditions so far as men and materials are concerned seem to be rather worse than at this time last year, but as the outlook last year was belied by the year's experience we take courage and believe that the year upon which we have now entered, even if it does not see the end of the war—though we profoundly hope it may—will prove as kindly to process engravers as did 1917.

A New Cold Enamel Process for Zinc.

AT the best of times it is difficult to get the ordinary enamel to hold on zinc. If it does hold well the zinc is probably spoilt by over-burning. Even those who are successful as a rule in working enamel on zinc find a difficulty at times in getting the enamel to hold, probably on account of variations in the quality of the glue. The trade should, therefore, says "Penrose's Quarterly," welcome a process which gives a perfect resist without having to depend so much on the quality of the glue, and which moreover requires no burning-in. This process is called "Negrocol" (introduced by Penrose & Co.), and differs from the former process called "Redcol" in that

the film is dense black and is not developed with alcohol; it is, moreover, not brittle. The method, briefly, consists in flowing the "Negrocol" solution on the cleaned plate, and whirling slowly over a hot plate. When the varnish is cool and hard the plate is flowed with bichromated fish glue solution and whirled over moderate heat till dry. Printing and development with water is done as usual. It is not necessary to dye the plate, as the black image shows up distinctly when the fish glue is washed out of the image. The object of development is to expose the black varnish in the parts uncovered by the image. These correspond to the white spaces between the dots. The varnish is removed from these parts by means of a special oil developer, which is applied by a plush pad brushed over the plate with a light circular movement. The detail will appear in about 10 to 20 seconds. The glue film is then wiped away and the image is to be seen in full effect, and is a strong acid resist, consisting as it does of the black varnish.

HERE is a useful formula for stripping the film from a negative: Soak the negative for ten minutes in a ten per cent. solution of formaline, then rinse and immerse in water loz., methylated spirit loz., glycerine 20 minims, hydrofluoric acid 40 minims.

As soon as the film begins to come away at the corner it can be stripped from the glass. This solution does not cause the film to enlarge.

He who will not answer to the rudder must answer to the rock.—ARCHBISHOP HERVE.

Laziness travels so slowly that Poverty soon overtakes him.—FRANKLIN.

EMPLOYING PROCESS ENGRAVERS AT THE WAR

LIEUT. G. NOEL HUNTER.



AMONG the large number of process engravers who are engaged in the war will be found quite a good representation of those holding the highest positions in the trade. Of these, Lieut. G. Noel Hunter is one of the foremost, representing as he does the great house of Messrs. André, Sleigh & Anglo, Ltd., one of the two largest houses in the trade, of which he is one of the directors.

Immediately upon the outbreak of war he felt the call to offer his services; consequently, notwithstanding the great responsibilities resting upon the firm in connection with their recent extension, he decided to put the needs of his country in the forefront and applied for and obtained a commission, and so elected to share the difficulties and dangers attendant upon such a course rather than claim that exemption which might have been urged with so much of reason.

In September, 1914, he joined the 2nd London Regiment, and almost immediately started for the East. Going first to Malta, he eventually found himself in Egypt, and after completing a period of service there he went with his regiment to Gallipoli, where he shared in all the privations of that ill-fated adventure, and took part in the evacuation.

As photography and process are doing such wonderful work in connection with the army, what could be more natural than that one whose life's experience had

been along the lines of that work, should be called to take up a position where his technical knowledge and resource could be turned to the greatest advantage; consequently when it was decided to create a process department in France, he was, in December, 1916, called to take part in the work, and so well did he acquit himself, and his tact and ability to handle men and processes was so thoroughly appreciated, that he was soon placed in complete charge of an advanced section of the army printing process and photographic work in France, in which position he has remained ever since, doing just the kind of service for which his business training had fitted him, and as in business life he was known to be thorough, those who have to use the products of his department may rest assured of the accuracy and quality of the work produced there.

Not only does Lieut. G. N. Hunter confine his activities to process work, he also produces an enormous number of photographs to aid the work of the R.F.C. in their important duties. He also has a complete lithographic plant in full swing, and as an instance of the enthusiasm shown by his assistants, it may be stated that recently they turned out two sets of three colour blocks of very excellent quality.

We wish him good fortune and trust the day may not be far distant when he will be able to return to Milford Lane and once more take up the work so unselfishly laid down at the call of higher duty.

It will be a matter of interest to the trade to know that the directors of André, Sleight & Anglo have come to the help of the Government, inasmuch as the firm has equipped a complete process plant and lent it to the army for work in another part of the field.

The Cost of Engravings.

A Printer's Point of View.

WHENEVER the subject of the prices of anything is mentioned, it's painfully like harping on the same old tune.

But then the facts are inflexibly before us, and it's a losing policy to weakly dodge the issue.

You pay more for your materials and in turn you must get more for your products. The relative value of commodities is about the same. Only the measuring value of the pound is diminished.

This time we are going to mention engravings—that is, copper and zinc, line, half-tone and colour printing plates.

Copper and zinc are several hundred per cent higher than they were “before the war.”

Chemicals have soared even higher in proportion.

Labour must be paid more to compensate the high cost of living.

So, it is only logical that engraving must be sold for more than the old scale, and the present increase is only 12½ per cent.

Hubble's Printing House Monthly.

WHEN we think of the complexities of modern industrial problems it is well to remember that the science of organisation is not so much a method of arranging or straightening out as of recognising what is complex and clearing for action. We shall straighten out the tangled skein of industrial discontent by organisation and optimism.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

CAUTION.—The Government having withdrawn the allotment of a large portion of the Copper promised to the Process Trade, Engravers are strongly advised to put as much of their half-tone work as possible on Zinc, and so husband what Copper they may have for their more important work, especially so as the quantity of that metal in view for early delivery is very small.

The President's New Year's Greeting.



THE Editor has asked me to write a cheerful message to my fellow members of the process engraving trade. Notwithstanding the distractions of the biggest war the world has ever seen, and the difficulty one has in detaching the mind from passing events, I accept his invitation with pleasure, although my message must, of necessity, be rather more sympathetic than joyful. The year that is gone forms a record of difficulties for our craft of various kinds. I need not recall them here. It is sufficient to say that they have, so far, been successfully surmounted, and that in spite of threatened dangers the trade has been kept going with remarkable vitality. There appears to be general satisfaction with the results of the trade agreement, which has been running for over twelve months. It is interesting to note in connection with our movement, which has been the means of placing our industry on a new and sound basis, how, of late, the idea of Industrial Councils is taking hold of the commercial world. The Government, concerned as it is with the important question of reconstruction after the war, is impressed by the necessity of securing better relations between employers and employed than have hitherto existed. It is recognised that commercial and industrial policy comes first in the vast Government scheme. A committee, appointed by the Government, has presented its interim report—known as the Whitley report—on the subject of “joint standing industrial Councils,” and it is interesting to see how nearly it approaches in its recommendations to the scheme which has been successfully brought into operation in the process engraving trade. It is true that its present suggestions are intended to apply more to the larger industries; but on looking through the report one is struck by the similarity of principle which has guided the committee in its recommendations for securing a permanent improvement in the relations between employers and workmen and for providing that industrial conditions

affecting these relations shall be systematically and periodically reviewed. Among the recommendations we find the following :—

A joint standing industrial council for each industry.

The appointment of district councils representing the Employers' Association and the Trade Union.

These councils to consider matters affecting their industry and particularly the establishment of closer co-operation between the employers and employed.

The granting to workpeople of a greater share in the consideration of matters affecting their industry.

To find means of giving workpeople, security of earnings and employment and fair methods of fixing and adjusting wages.

To consider technical education and industrial research.

Business men are bestirring themselves in the same direction all over the country.

It is announced that the War Cabinet has decided to adopt the committee's proposals, as part of the policy which they hope to see carried into effect in the field of industrial reconstruction.

I think the Process Engravers' Federation, together with the Electrotypers' Association (who instigated the movement), are to be congratulated on the fact that their working machinery is already in existence, and that these trades have now been established on a sound basis of co-operation and mutual interest. We claim to work with the men's society, and I can say that in the many negotiations we have had with their representatives, we have always found them reasonable and fair. My faith is great in the solid common sense of our people, and by means of a little foresight

and perseverance, I believe the country will, without revolution or turmoil, evolve more satisfactory and happier conditions in the future for all concerned.

Indications are not wanting that the authorities are alive to the need for action in other directions to safeguard and improve the future productive position of the country. An instance of this may be found in the “Non-ferrous Metal Bill,” now being discussed by Parliament. Before the war, photo-engravers, in common with many other industries, were dependent for the supply of zinc—an essential material—upon Germany, who controlled the greater part of the non-ferrous metal supply. Germans controlled not only the metal as it was produced, but also the raw material from which it was produced. To get free of this control is the chief object of the measure, which is a distinct step forward in securing economic freedom.

We may be satisfied, then, that the people of this country are gradually learning the lessons of the war, and that out of the present time of difficulty and anxiety we will surely emerge to a better condition, with our lives planned on a higher level, socially and industrially, and with a larger amount of security and contentment all round.

To every member of the Federation I wish the largest possible share of prosperity and happiness in the New Year.

A. DARGAVEL.

Continued from page 10.

on the Council is requiring more help in the production of its own work, yet cannot procure such labour: it is therefore an impossibility to tell others where such labour can be procured.

The next meeting of the Council will be on December 31st.

The Council at Work.

DURING the month there have been two meetings of the full Council, beside several meetings of the Sub-Committee for various purposes.

Several questions were asked re the payment of the bonus, each of which called for very careful consideration ; so that on the one hand the employers should not feel they were called upon to pay more than was right, and on the other hand the employees' point of view had to be considered and the two reconciled. The scheme that has been adopted, and of which the members of the Federation have been advised, is believed to be so fair to each side that neither can complain.

As so many process houses are now looking in the direction of photogravure, and as so many of the workers in that branch of the trade are in the same Society as the process workers, there has arisen a desire to put that section of the trade upon as sound a footing as possible.

To secure this a Sub-Committee was formed whose duty it was to prepare a scheme to be placed before a general meeting of the whole of the photogravure houses in the country. This meeting was duly called, and had before it not only the sub-committee's scheme, but also the scale of payment, etc., put forward by the Men's Union.

Several of the houses interested attended the meeting, and the whole matter was fully discussed, and a scheme prepared which it is hoped will be accepted by both sides as a foundation upon which to build. This section of the trade being comparatively young, the experience already gained while pointing out the general trend is not yet sufficiently definite to cover every point that may arise, but

once get the foundation of an agreement well and truly laid, a superstructure may be safely reared thereon that will serve for many years to come.

Questions concerning dilution of labour, the training of soldiers who have been broken in the war, the status of apprentices who are serving in the army, the number of apprentices to be allowed, together with some sort of regulation as to the terms of their indenture, pay, etc., etc., are still under discussion, and are receiving the closest attention of the Council, and as soon as decisions have been reached on these matters the Federation members will be fully informed thereon.

The Northern Counties Association, a section of the Federation comprising most of those houses situated within a reasonable distance of Manchester, have from time to time sent recommendations to the Council which have not infrequently been found to be very valuable. The minutes of their latest meeting contained some suggestions which the Council were pleased to consider, as they affected the interests of the trade as a whole, and not merely those of the Northern Association.

Among other suggestions was one that the Federation illustrated price list should be revised and brought up to date and reprinted.

That this illustrated price list was an exceedingly valuable piece of work has been the experience of practically every house in the trade, but as the march of events has been so rapid the price list has already become practically obsolete, and there seems to be a general desire that it should be revised and reprinted. This has been accentuated by the request of the Northern Association. Consequently the Council have appointed a Committee to go very carefully into the matter and

get the preparation forward so that it may be all ready to go to press immediately after the next General Meeting early in the New Year.

As this is a matter which closely concerns every house in the trade, the Sub-Committee will be pleased to receive suggestions that may be helpful toward making the next edition as complete and perfect as possible. No doubt many process engravers throughout the country will have valuable suggestions to make. Will they, therefore, kindly send them forward at once to the Secretary, at the offices of the Federation? Such suggestions may be very helpful to the Sub-Committee.

There are certain customers of the process engraver who seem to be still harbouring the desire to break down the good work done by the Federation in the interests of their own businesses. Cases have been reported to the Council in which such customers have gone to the trouble of devising plausible schemes for circumventing the regulations of the Federation, and have got into touch with some of its members and have laid before them such schemes, tempting them to "go behind" their brethren in the trade, and by the promise of a greatly extended turnover secure for themselves certain advantages.

It is very pleasing to know that those houses who have already been approached have not only turned a deaf ear to the wily intrigue, but have also come boldly to the Council and laid the matter before it. Will every house that is treated to any similar offer kindly communicate with the Secretary forthwith.

It will be welcome news to the trade that the question of collodion seems to be in a fair way toward a settlement; the

Government Department having given the Federation a licence to purchase collodion or the materials wherewith to make it. The Committee who have the matter in hand are therefore making such arrangements as will enable the trade to carry on so far as this commodity is concerned.

Another matter of great importance to the trade is the question of a special trade mark, which is to be registered under the special clause of the Trade Marks Act relating to such matters.

A design has been accepted, simple yet effective, and a number of steel punches prepared, so as to enable Federated houses to stamp the design upon the flange or some other portion of their blocks. This design is to be made known throughout the printing trade, so that printers everywhere will know that the blocks have been made under Trade Union conditions—a very valuable piece of information in many cases.

Houses which have at any time tendered for work at H.M. Stationery Office will be fully acquainted with the methods adopted there, and as hitherto these methods have been applied to the production of process blocks for certain departments of the Government service, it has been practically a gamble whether the result would be a gain or a loss.

The Council feel strongly that it is time the matter was taken up with the department with a view to getting it put upon a more satisfactory basis, for there can be no reason why the Government should be treated differently from any other purchaser. With this in view the Council has opened correspondence with the Stationery Office, and proposes to press for a change that will, it is believed, be for the benefit of the trade as a whole.

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The increase of 12½ per cent. upon the July prices seems to have been accepted by everybody as a foregone conclusion, and the complaints have been exceedingly few.

Some peculiar positions, however, have been caused re work in hand. In one case it was work commenced over two years ago, and not yet completed. The customer, however, was demanding delivery at the prices ruling in 1915, though the delay was at least partly through his own inability to procure his specimens from which to work. In such case there can be no reason in the demand, and the Council's advice was that such work should certainly be charged to the customers at current rates.

As the scale of sectional prices is now very difficult to calculate owing to the various changes that have been made since it was printed, it was decided that a new scale should be prepared according to the prices current to-day, and that it should be distributed to the trade as early as possible.

Among the correspondence dealt with were some interesting questions of prices to be charged for work outside the Federation scale. It might have been thought that the scale of prices laid down embraced practically every style of work a process house might be called upon to perform, but it is very evident there are brains still at work, principally in the large advertising houses, devising new combinations, etc., that frequently puzzle the process engraver when he comes to make out his invoice.

One such case was that in which the Council was asked to fix a price for six colour line blocks done on copper. This was such an exceptional case and so much depended upon the class of work, etc.,

that it was felt it would be best to leave the house free to charge the work up according to the time taken in which to produce it.

There seems to be a current idea that the prices laid down in the Federation scale are the maximum prices, but the Council wish to impress upon every member of the Federation that the scale is that of minimum prices for the most straightforward class of work—anything beyond this should most certainly be charged for.

It is fully realised that a minimum scale when published has a tendency to become the standard. The Council would therefore impress upon every member the necessity of keeping this fact in mind, and seeing that it is in practice a scale of minimum prices and not a standard scale for all classes of work.

Another question put to the Council by a provincial house was, What is the definition to be attached to the term "an improver"? The Men's Union applied this term to those young people who had come into the trade otherwise than by apprenticeship, and had partly learned the trade, but were not yet fully qualified workmen.

This class of person will be gradually eliminated from the trade as the army claims all above 18 years of age, and as the whole of the process workers are now Trade Union members they will see that no one but those duly apprenticed are admitted into the workshops for the purpose of learning the trade.

The scarcity of workers is very much in evidence from time to time as letters are received asking if the Council can do anything to relieve the difficulties of the position. This, however, is quite out of the question, for every house represented

Continued on page 7.

✓ *Point Measure v. Inches.*

By T. C. Eamer.

THE discussion of this subject in our pages during the last two months, taken together with the letters that have appeared in the "Caxton Magazine," plainly indicate that there is no great difference between the views of the process block maker and the more progressive printer who asks that all process blocks shall be delivered to him not only perfect as far as the printing surface is concerned, but perfect in every detail.

We say at once that we heartily sympathise with the demand for the most perfect block that can be produced, but as the process engraver will wish to know just where he stands we are almost forced to ask the question: Do these more progressive printers voice mainly their own ideas and wishes or do they voice the wishes of the trade as a whole? -- and further. If they are speaking on behalf of the trade as a whole how is it there is no general demand for the reforms they advocate?

It appears to us that a matter which so vitally affects the every-day business of the printer is one he should take up and thoroughly consider for himself, viewing it from every point, and make up his mind what it is he requires, then ask for it and see that he gets it.

As matters stand we think it is hardly to be expected that process engravers who have installed expensive machinery, built expressly for doing a certain class of work in a certain way will immediately decide to rush in and purchase an entirely different kind of plant, that may or may not prove to be a sound investment without knowing first of all what it is the printer actually requires.

The whole scheme of production in process houses has been standardised upon the lines of the demand they have to meet. That demand has run upon certain definite lines, consequently the supply has been upon those same lines.

Whether those lines are the best possible under every given circumstance may be open to question, but our point is that the demand having arisen along a given line the supply has been along that line; but who is responsible for the course the demand has taken we do not propose to consider. We simply state the case as we see it, and ask where does the demand for the change advocated come from? or rather is there any general demand for such a change?

We think no one will attempt to gainsay the soundness of Mr. Pells' argument when he lays it down as a desideratum that all process blocks should be mounted so accurately to a given measure that they will naturally justify with the printer's furniture. Neither do we suppose that any printer would object to have his blocks so accurately mounted. But taking these statements for granted, one naturally asks how is it the printer is so careless of his own interests that he never asks for such accuracy? Consequently one is led to ask further, if the printer is satisfied with the present system—and if anyone has to suffer in consequence of it, it is he—why should the block maker force upon him something about which he appears to be supremely indifferent?

It is just here that a very much larger question comes to the front, and it is on these lines:—

Should the block maker rise above the

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present position and standardise the whole of his products—that is, fix a standard etching depth, standard bevel, standard flush at foot, and standard point measure for mounting—in fact, completely standardise his product?

It may be asserted that it is the duty of the block maker to turn out his product absolutely perfect in every respect, and with that we agree, but all the engraving houses of repute will reply at once: Yes, the work we turn out is perfect, and so it is so far as the meaning they attach to perfection is concerned, but Mr. Pell and his friends go further and say it is not only the printing quality of the plate we require to be perfect, but we want the other details perfect as well.

So the question arises: Is the block maker to carry perfection into these other operations and impose his will upon the customer whether he acquiesces or not, and charge the extra cost the work would entail?

This appears to us to be the crux of the whole question. Everything seems to depend upon the reply it receives. If the question is to be dissociated from that of price, and considered only from an academic standpoint, then we say, Yes, of course nothing short of perfection should be good enough; but in the business life of to-day (I do not refer merely to war time) degrees of perfection are recognised and experience suggests that the degree of perfection already attained in the block making industry meets all the requirements of the trade. Consequently it would almost have the appearance of being over punctilious should the block maker of his own accord take such steps as those indicated.

Let it be fairly understood that the block maker is out to supply his customer

with what he requires, and nothing would please him more than that his customer should demand so high a standard of excellence as would put the block making industry into the highest place among the graphic arts. Consequently, as soon as ever the printing trade as a whole say they require perfection in every detail of the production of their engravings, the process engraver will go out to meet them far more than half way.

Photographing Buildings on Busy Streets.

ON a poorly lighted street, on a dull day, the photographer does not stand much chance of securing a good negative of a building or similar subject by making an ordinary exposure. But it can be done quite easily. Place the camera on a support where it will be entirely rigid. Stop the lens down to the smallest aperture. Calculate the exposure. Suppose this is found to be something like a minute, or more. Set the shutter for a time exposure and make an exposure of about two seconds. If there are teams, automobiles, or people standing in the view, wait until they have moved on, and make another exposure. Do this a sufficient number of times to make the total exposure as calculated. By breaking the exposure up into short periods of this sort the images of moving objects, or those which have been at rest in one place during but one period, will not show up at all, and the result will be a negative of the street and buildings only.

Reinstatement—Be Prepared.

By J. W. Pell.

IT has already been announced that plans for the demobilisation of the Army are complete, and will be put into operation as soon as possible after peace has been declared. War problems have been engaging our attention hitherto, but there is another problem to be faced: that is the reinstatement of our gallant men who return from this, the greatest of all wars. We must think ahead and anticipate what may happen, instead of waiting to see what will take place when demobilisation becomes an accomplished fact. The scheme for the training of disabled soldiers and sailors, which was outlined in the last issue of *THE PROCESS MONTHLY*, is an excellent one as far as it goes, but it will not do much to relieve the congestion of the labour market when the men released from the army and the munition factories are ready to resume their former occupations.

We shall not lose sight of the men who have been disabled in the war. Efforts will be made to find out what classes of work they can take up in their own trade so that a man may be placed in an occupation for which he is fitted, considering his energy, intellect, and adaptability. The Trade Advisory Committee for the printing, process and allied industries have a plan already fixed up for the training of such men. This is a good thing, but that scheme does not touch the men who will return safe and sound. These men will have to be provided with work also.

What are we in the graphic industries going to do for that large number of men associated with the printing, process and kindred trades, who will return, but will

not find positions waiting for them? It would be folly to ignore the peril of the situation when millions of men will be thrown upon the labour market, and no condemnation will be too great if we wilfully close our eyes to the danger. We shall be confronted with conditions the like of which we have never known before; consequently if the situation is not faced while there is time to organise, the least imaginative among us can fill in the details of the struggle that will take place when, after four or more years of fighting, the artificial restrictions of war are removed. The real crisis will come after the war is ended, and the flood-gates, so long shut, are opened.

The position, fortunately, is one which we can face with some degree of confidence if we take steps in time. As we cannot avoid the coming crisis, we must lay ourselves out to control it. It will be essential that some strong and intelligent control shall be exercised in all industries, so that suffering and hardship may be prevented. The labour released from the army must be quickly absorbed and placed at productive work.

We owe a debt to the gallant men who have borne the burden of the terrific struggle, and it is up to us to do what we can to repay that debt as far as possible. The best thing we can do is to organise the graphic industries so that when demobilisation takes place we are able to put every man released from the army or navy who was formerly employed in the printing, process and kindred trades, at once into employment. This may be a difficult matter, but if employers and trade unions will work together the difficulties

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can be overcome. The graphic industries, printing, lithography, process engraving, bookbinding, stereo, and electrotyping, typefoundry, etc., should stand together in this matter.

With regard to the organisation of the allied industries for dealing with this problem of reconstruction, we have the nucleus of a scheme in the National Service Committees of the various associations and trade unions. The work of these committees could be co-ordinated and amplified to meet the requirements of the period of reconstruction, and the information gathered for the purposes of National Service utilised to good advantage. The Local Advisory Committees could also be of use in this work. Centres could be established throughout Great Britain for the classification and systematising of labour. The committees, working in conjunction with the trade unions and employers' associations, would be competent to deal expeditiously and economically with all classes of labour in the graphic industries. They should cover the whole of Great Britain and be in close touch with each other, so that no waste is incurred by having a surplus of labour in one part of the country and a shortage in another part. Men capable of performing the work upon which they were engaged previous to the war should as far as possible be reinstated. The facilities of the centres for placing men in employment should be made widely known throughout the services, so that men may be encouraged to use them.

I do not believe anyone connected with the photo-engraving or any other of the graphic industries who is interested in the welfare and future well-being of our brave men would let them down by neglecting any means that would tend to help

them when they will be most in need of our assistance. It would be an indelible stain on our honour as a nation if we allowed our gallant soldiers and sailors to return to industrial warfare after their hardships in France, Flanders, Mesopotamia, and elsewhere. Many will return to find their homes wrecked, and will have to start out in life afresh. What a prospect to look forward to! The very least we can do is to see that those who return suffer no further disadvantages when peace dawns on a war-weary world. Let us take the Boy Scouts' motto as our watchword, and "Be prepared," so that our trade will be able to do its bit in order to prevent industrial strife.

The Paper Restriction Orders.

"IF you are a manufacturer, a merchant, a wholesaler, a retailer, or engaged in any business into which the question of publicity in the form of printed matter enters, these restrictions threaten the very existence of your business as well as the whole fabric of the nation's commerce."

The above is the opening paragraph of an appeal issued by the London Chamber of Commerce, to practically every one concerned in the use of paper for commercial purposes, and as process engravers find so much of their business comes from that section of the community, it is evidently to their interest to see that these restrictions are either removed or properly adjusted.

As these orders come fully into force on February 1st, it is essential that every process engraver does whatever he possibly can to influence his M.P. to seek their immediate repeal or adjustment.

High Wages and Low Costs.

IT is an absolute certainty that the wage of the worker will never again come down to the figures which were common three or more years ago. Supply and demand always affects prices and wages, but there is a minimum below which community dangers show themselves, and this minimum changes as the years go on, every change making it higher.

The abnormal earnings of some men and women to-day will stand on record as abnormal, and when the market for their special services on certain products has disappeared, those abnormal earnings will likewise disappear. But the regular, systematic advances made to workers every few months on account of the war will surely stand—perhaps not all of them, but a large proportion sufficient to make the pre-war wages seem beggary.

Some might consider this to be a dismal prospect for the manufacturer, but really it can be a part of his salvation. There is nothing antagonistic in high wages and low cost of production. A man will automatically become worth more as a worker in proportion to the increase he can secure in the productivity of the machinery under his control.

Wages do not make as much difference in arriving at cost as some people think. Quite apart from the increase in the cost of living, which seemed on the surface to prompt the request for increase in pay, there is the psychological point that wages cannot help themselves from going up when production is expedited. It seems almost a natural law of industry.

Let us admit the justice of a reasonable wage; let us compute a reasonable wage

as one sufficient for an intelligent man to keep himself and his wife and family respectable and comfortable. Let us try to stop the manufacturer from devoting his energies toward trying to pull down the rate of pay of his workers; and let us make the workers understand that their wise move is not to try and restrict the output of the factory.

If we can manage to do these things, and much progress has been made along these lines, then it is comfortably possible for the workers to have high wages, for the manufacturer to have more profit, and, by the exercise of efficient production methods, for the prices of the goods to be lower than they have ever been before.

It is all a matter of playing fair between master and man, of exercising sensible co-operation, of making the machinery—which has no soul to sear and no mind to think—do the hard work.

—From *Impressions*.

✓ Prints for Reproduction.

PRINTS which are to be reproduced by the half-tone process should be made on glossy paper if the negative is perfect, and no retouching will be necessary. For amateur purposes, if the negative is blemished and will make retouching necessary, a print on semi-matte paper will prove easy to handle, as it can be retouched without difficulty and has such a slight grain that the engraver will have little trouble in making a good negative. The use of the proper printing medium is often the making of a photographic study, and the requirements of the engraver must be subordinated to those of the artist.

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PLATE PROGRESS is the title of a very interesting booklet put out by the Jahn & Ollier Engraving Company, of Chicago. Its cover in four colours depicts primitive man working with chisel and mallet engraving on stone, while in the lower portion of the cover there is the suggestion of a modern process engraving shop with all its bustle and enthusiasm, with the finisher in the foreground looking up at his primitive brother. A most effective cover eminently suited to the purpose for which it was designed. This company have just added a fourth floor to their already extensive premises, as they say, while others have retrenched. Satisfied customers have made it possible for them to progress, seeing that advertisers need better and greater service, which they are out to give.

The purpose of the booklet is to aid advertisers with suggestions in illustrations and methods of reproduction, and the company are not slow to show unusual effects produced in various ways. Their various booklets take the advertiser by the hand and show him how to get the best possible value out of his advertising.

That their methods are very successful may be assumed from the fact that they commenced business sixteen years ago as a one-horse affair, while to-day they have a staff of three hundred people working continuously from Monday morning till Saturday night all the year round.

We shall hope to give further news of this progressive firm from time to time as opportunity permits.

THE ECLIPSE OR AN ALMANACK for November is as usual full of good things. The specimens of line blocks from half-tone originals are very good indeed, and show how difficulties can sometimes be overcome. In fact the whole number is a valuable issue, from which we have taken one or two of the good things which will appear in our pages from time to time.

ADVICES, No. 4, the house organ of Messrs. Gibbs & Waller, Ltd., cannot be said to be a voluminous production, for it consists simply of a four-page cover and four pages text, yet it has some good things about business, and, of course, the particular phase of business in which they are interested. It is well got up and printed, even though, as they say, the paper is very common.

THE NORTHERN, the house organ of the Northern Engraving Company, still points the way to good and effective engravings or "cuts," as our American brothers call them, and incidentally points out the attractive power of colour. As usual it has some good points and should be a valuable method of making known to likely customers the service they have to give, and from what the editor says we have no doubt it is successful.

IMPRESSIONS, a business magazine of character, seems to have made a place for itself, for the editor tells us it has been a success from the first, though we must confess that many of the earlier numbers seemed to us to lack any reason for their production. Yet it is evident they met with appreciation in some quarters.

This magazine has now blossomed out into a full demy 4to of 48 pages, and the November number has certainly some very good articles upon various aspects of business, and if the editor can but produce subsequent issues of equal value to the one in question, there can be no doubt the magazine will continue to be a success. As imitation is the sincerest form of flattery, we are taking the liberty to reprint one of the articles in this magazine.

THE folder of the Keim Brick and Tile Company shows the value of colour in illustration. Here is a folder measuring 9 x 4 in., which gives admirable illustrations in colour of ten different kinds of brick they produce, so that the builder desiring a certain kind of brick for any particular purpose can easily turn up the information and decide which sort to order.

The folder is well produced and well printed, and will no doubt bring excellent results in the way of orders.

THE PRINTING ART still holds its pre-eminence as the organ of the printing trade in America. It sets a very high standard for the trade to follow, and is a model of what such a trade organ should be. It has always something well worthy of consideration in its pages; it is always welcome and certainly extremely useful.

THE PRINTING ART SUGGESTIONS BOOK is one of the most valuable issues that comes to us from time to time, and were its virtues known to every printer in this country we think there would be a very large demand for it. We sometimes wonder why it is such an issue is not published in this country; it would be invaluable to practically every printer, but as there is nothing of the kind on the English market we say to every process engraver and every printer: Get the Printing Art Suggestion Book.

AN American paper says that a soldier in the British army wrote home: "They put me in barracks; they took away my clothes and put me in khaki; they took away my name and made me 'No. 575'; they took me to church, where I'd never been before, and they made me listen to a sermon for forty minutes. Then the parson said: 'No. 575. Art thou weary, art thou languid?' and I got seven days in the guardhouse because I answered that I certainly was."



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

Reconstruction—The Whitley Report.

By T. C. Eamer.

THE report of the Sub-Committee on relations between employers and employed, now known as the Whitley Report, has been before the public sufficiently long for those more particularly concerned with the important matters it deals with, to have had time to consider and digest the many and far-reaching suggestions made therein, for the purpose of securing the very best possible results out of the upheaval which is, more or less, bound to take place when the war is over, and those at present engaged therein are once more thrown upon the labour market.

We do not profess to have any particular or general knowledge of what is being done in other trades, but from the absence of reports, or any news of movements in the directions indicated, it looks as though things are moving somewhat slowly.

It is now about ten months since the report was first published, and as we all hope that the war will be over at any rate some time during the present year, it is evident that if anything is to be done, it should be commenced promptly, otherwise further time will be lost, the result being that ill-considered and immature plans may be foisted upon the various trades that may do more harm than good.

Now, as example is much better than precept, I would suggest that the process trade take immediate steps in the matter and hold a joint meeting between the two Trade Unions for the discussion of this important question, and to determine if the suggestions made in the report are applicable to the process trade, and if so how far they may be applied.

It appears to me that the process trade is most unique for the purpose of experimenting in the direction named. There are very few trades in the country where the organisation both of the masters and the men is so complete as in this trade. We believe that very few of either the employers or employees' unions can claim a membership of over 95 per cent. of the firms and workers respectively, as can the two Unions in the process trade.

Seeing that both sides have practically the whole of their respective clientèle in their organisations, is it not clear that here is a trade adequately organised, as the Committee suggest, and that can at once put the suggestion of the report to a practical test, and may it not be that the example thus set may be of use to other trades and help them in a perhaps more difficult task? But whether that be so or not, let process be pioneers in the matter

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and help point the way to a better and sounder future, for as the report says : " The schemes recommended are intended not merely for the treatment of industrial problems when they have become acute but . . . more especially to prevent them becoming acute."

It may be asked what are the suggestions of the report, and what are the objects to be achieved ? The answer to the latter part of this question is : The establishing of permanently improved relations between employers and employed, and securing the largest possible measure of co-operation between them.

The committee claim that it is allowed that the war has enforced some reconstruction of industry, therefore it is essential that any proposals put forward should offer to workpeople the means of attaining improved conditions of employment and a higher standard of comfort generally, and involve the enlistment of their active and continuous co-operation in the promotion of industry.

Whether the workers will rise to the heights suggested by the Committee, is, of course, a matter that the future alone can decide. The Committee seems to think they will abandon their hitherto seemingly antagonistic attitude toward capital, and in return for greater benefits will give greater service. If the experiment should have such a result it will be to the benefit of all concerned, and be a great improvement upon the conditions that have so long obtained in this country.

In order to secure the hearty co-operation the report suggests that in any industry thoroughly organised - as is that of process - there should be set up National Joint Standing Industrial Councils consisting of representatives appointed by the respective unions, which shall meet at

frequent regular intervals for the purpose " of considering matters affecting the progress and well-being of the trade from the point of view of *all* those engaged therein," and as it is foreseen that there will be many complicated and difficult questions to settle, it is clear that it will need such intimate knowledge of the facts and circumstances of the trade such as can only be found among those directly concerned therein.

The question to which the consideration of these National Councils should first be given will of course be (1) the effect of demobilisation. (2) the establishment of Local Councils throughout the county, and (3) the establishment of Workshop Councils, so to form a complete link from the Workshop Council to the Local Council, and through them to the National Council, which will of course deal with their respective Unions.

The report considers that the establishment of this triple organisation is essential to the success of the scheme. It is moreover essential that the organisation at each of these three stages shall proceed on a common principle, so that the greatest measure of common action between them can be secured.

Just as the regular and frequent meetings of the National Councils are considered necessary, so these Local and Workshop Councils should meet at stated intervals not too far apart, and so achieve that great desideratum, the keeping of employers and workpeople in constant touch.

The following are some of the questions it is suggested the National Councils should deal with through the local Councils and Workshop Councils, etc. :

(1) The better utilisation of the practical knowledge and experience of the workpeople.

(2) Means for securing to the workpeople a greater share in and responsibility for the determination and observance of the conditions under which their work is carried on.

(3) The settlement of the general principles governing the conditions of employment, including the methods of fixing, paying, and readjusting wages, having regard to the need for securing to the workpeople a share in the increased prosperity of the industry.

(4) The establishment of regular methods of negotiation for issues arising between employers and workpeople, with a view both to the prevention of differences and to their better adjustment when they appear.

(5) Means of ensuring to the workpeople the greatest possible security of earnings and employment, without undue restriction upon change of occupation or employer.

(6) Methods of fixing and adjusting earnings, piecework prices, etc., and of dealing with the many difficulties which arise with regard to the method and amount of payment apart from the fixing of general standard rates, which are already covered by paragraph (3).

(7) Technical education and training.

(8) Industrial research and the full utilisation of its results.

(9) The provision of facilities for the full consideration and utilisation of inventions and improvement designed by workpeople, and for the adequate safeguarding of the rights of the designers of such improvements.

(10) Improvements of processes, machinery and organisation, and appropriate questions relating to management and the examination of industrial experiments, with special reference to co-opera-

tion in carrying new ideas into effect and full consideration of the workpeople's point of view in relation to them.

(11) Proposed legislation affecting the industry.

Such, then, is the outline in brief of the scheme put before the country by the Whitley Report, and in our judgment it seems to lay the foundation of a successful scheme providing it is sympathetically thought out and carefully applied to any trade, and we believe it would be a fairly easy matter to apply it to the process trade, which has everything in readiness for such an experiment.

White Spots on Prints.

SMALL white spots on prints are a nuisance. They can be avoided by exercise of cleanliness and care.

If the solutions in which the negative is produced are kept clean religiously, no small pieces of dirt or grit can become embedded in the emulsion; thus one cause of white spots can be avoided. Another cause is the use of too little developer for the paper. The rapid flowing necessary when the developer is too shallow, results in the imprisonment of minute air bubbles which may settle on the emulsion of the paper, causing white spots. Another cause is over-exposure of the paper, which is placed in the developer and jerked out again as it flashes up, allowing no time for the removal of small air bells, or for any difference in the instant of immersion and consequent unevenness in development.

—From *American Photography*.

EMPLOYING PROCESS ENGRAVERS AT THE WAR

PTE. W. H. THORPE.

MR. THORPE, one of the principals of Messrs. Entwistle, Thorpe & Co., of Manchester, is well known among his friends as an enthusiastic ambulance man. Immediately after the outbreak of the war he began to take a greater interest in this class of work, and realising the necessity of such trained assistance in the field, he somehow or other managed to forget the date of his birth, and looking much younger than his years, offered himself to the R.A.M.C. as a private, and was immediately accepted, and within one week was engaged on active service in France.



In joining the R.A.M.C. Mr. Thorpe had no other desire than to be of use where his training most fitted him, and consequently found his greatest happiness in work among those committed to his charge, this work bringing with it the reward that most appealed to him, the sense of duty well done. He has therefore not in any way sought promotion.

Unfortunately, about two years ago, he was seized with a very severe attack of blood poisoning, and had to be admitted as a patient to his own hospital, but even this turned out to the benefit of the work in which he was interested, for

Owing to his intimate knowledge of ambulance work he was specially drafted to the St. John Ambulance Brigade Hospital. Here he found a congenial sphere of labour, and his intimate knowledge of the French language stood him in good stead.

during his illness and convalescence his officers came into closer touch with him, the result being the discovery of his intimate knowledge of the French language, so that upon his recovery he was immediately placed in a position in which his linguistic

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THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
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The Council sits every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an Open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

DURING the month three meetings of the Council have been held, at each of which some important business has been transacted.

In addition to the ordinary meetings of the Council several sub-committees have met for the purpose of preparing various schemes for the benefit of the trade. The time given to these matters has been most valuable, therefore it is not without its serious aspect, for as every business man knows, it is practically an impossibility to crowd into the working day more than has to be crowded in under ordinary conditions. Therefore, it is a severe drain upon the spare time of those who serve on these committees, consequently there is all the more honour to those who give so ungrudgingly of their time to the service of the trade.

One of the most important committees has been that of the photogravure section, which is endeavouring to place photogravure work upon a sound basis in order that it may not be exploited, as was the process trade in recent years.

If this committee can produce a thoroughly sound and workable scheme which will be acceptable to both the masters and the men's Unions, it should earn the lasting thanks of all concerned. So far the negotiations are proceeding fairly satisfactorily, but it is too early to speak with any definiteness as to what will be the final issue of the scheme.

Every house working in photogravure should be keenly interested and should

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take its share of the burden and do everything in its power to make the scheme as great a success as has been that of the process-engravers.

Another committee which has been doing excellent work is that concerned with the question of dilution of labour, apprenticeship, disabled soldiers, etc., etc.

These questions, through the stress of circumstances, have become so urgent—the correspondence received respecting them showing the very great difficulties under which the trade is labouring—that it was felt the time had come when a very earnest effort must be made to find relief in one direction or the other.

Consequently this committee was instructed to prepare and draw up a scheme which it felt would meet the urgent necessities of the case, yet should not impinge too heavily upon the position hitherto taken up by the Men's Union in these matters.

The Committee presented its report, which formed the basis of a discussion at an important conference between a representative deputation of the Men's Union and the Council, which took place at the Offices of the Federation.

That the Men's Union attached great importance to the matter, and rightly so, was evidenced by the strong deputation they sent, consisting of no less than seven delegates from headquarters, all thoroughly acquainted with the practical side of the subjects they had come to discuss.

It was soon evident that while the deputation held strong views upon the matters under discussion, they were at the same time quite prepared to consider each particular item in the programme fairly upon its merits, and endeavour to find a solution for the difficulties, if

one could be found without infringing the fundamental principles of their Society.

There were six main points to consider, each one somewhat dependent upon the other, yet each having some particular point that claimed separate consideration.

The Men's Union from the outset have stood fast against the introduction of female labour into the workshops, the constitution of their Society being such that females are inadmissible for membership; this being the case they felt that should women workers be admitted into the trade it is quite evident the society could not control them, and they might easily become a menace, especially if they came in in large numbers. They would also be in competition with those who have been called to the war, and desire to return to their former position when it is over.

On the other hand, the employers showed that as it is impossible to get trained workmen, and almost as impossible to procure apprentices, and as the supply of soldiers returning from the war who are suitable for training as process workers is so very small, it is perfectly clear that something must be done in order to enable them to keep their plants in working condition, and to meet the demands—restricted as they are—which are made upon them.

This was the first important point that called for settlement, and both sides addressed themselves to its solution.

The outcome of a long and very friendly discussion was that the Men's Union would sanction an increase of female labour to the extent of 10 per cent. of the workers in the trade, and that any firm desiring to secure such labour should apply for permission to do so, upon which a Committee consisting of a representative of

the Federation, the Secretary of the Men's Society, the employer, and the father of the chapel in the house concerned, should meet at the place where the works are situated, and after considering all the circumstances, come to a decision upon the matter, which decision shall be binding upon both parties.

Another point that called for careful attention was the number of apprentices allowed to be indentured. the rules of the Society specifying that there shall not be more than one apprentice to every three journeymen ; and though the men's representatives plainly recognised the present difficult position of the employers they felt it was impossible to make any concession in this direction without first of all altering the fundamental principles of the Society. This it is clearly impossible to do without first of all getting a clear vote of the members upon the points.

Mr. Kneale, the men's Secretary, however, pointed out that his Society had met the Federation fairly in this matter some time ago, when they granted the concession that the number of apprentices now employed might be calculated upon the number of journeymen employed previous to the war. This they felt was a very substantial concession, and could not be exceeded, especially as other apprentices were allowed to be indentured in place of those who have to leave to join the army.

The question of those apprentices who, having been called to the army, would return to complete, at least, a portion of their lost term, was considered. What was to be their position when they returned ?

After careful consideration of the matter it was decided that apprentices who were in their last year when they joined the

army should be allowed to return as fully qualified workmen.

That those who had more than one year to serve, should return to the house to which they were indentured and complete their apprenticeship, but should have one year in the army counted as one year's service, the remainder of the term to be worked, and payment, if the employee was over 21 years of age, should be two-thirds of the minimum rate, instead of the amount named in the indenture.

If apprentices returning bring up the proportion beyond one to three journeymen, then no further apprentices can be taken until that proportion is re-established.

The Men's Union is naturally desirous of seeing that apprentices are properly trained and prepared to become creditable journeymen fully qualified for the work they have to perform. They therefore wished to discuss the matter with a view to getting a uniform system for the whole of the trade.

The representatives of the Men's Union had given the matter their careful thought and laid before the meeting a well-devised scheme, but as so much time had been occupied with the previous matters it was felt best to defer detailed consideration of this question till the next meeting of the Council.

The question of the employment of discharged soldiers, who were not process workers, but who elected to be trained for such, and the conditions to be observed, was fully discussed, and it was decided that such soldiers should be admitted to the trade, but should count as apprentices in calculating the proportion between apprentices and journeymen. The conditions under which they were to be trained, etc., have been described in the

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October issue of this journal, and the question of putting forward any modifications of the Government scheme which may ultimately be found necessary was postponed.

A proposal connected with the working of the trade agreement was considered, and although a minor matter, it was felt that agreement upon it would strengthen the position and improve matters all round. The proposal, although it may have involved an element of risk to certain workers, appealed to the common-sense of the men's representatives, and was agreed to without loss of time. It was a finishing touch to the effectiveness of the agreement.

A few other matters of minor importance were considered, which brought a very lengthy meeting to a close, everyone feeling that the afternoon's work had brought us into closer agreement with the men, and reinforced the good relationship which already existed.

The Paper Restriction Order has been under consideration, and the Council has joined in the effort of the Chamber of Commerce to get a modification of the same; whether these efforts will be successful may probably be known before the present issue of the magazine is in the hands of its readers. Whatever the result, it is well for the trade to know that their interests in this particular are being very carefully watched, and that everything the Council can do in the direction of helping will be done.

Correspondence has been entered into with H.M. Stationery Office as to the conditions of their contracts re process blocks. Those who have had any experiences of the peculiar forms of contract issued by the Department will, we are sure, feel no surprise that the Council

is endeavouring to get this matter put upon a sound commercial basis. At present it is nothing but a jumble, for it is quite impossible for any one except those who are actually doing the work, to make any calculation that will have any pretence at accuracy. So much is this the case that the Council is determined if it is at all possible to get matters altered so that every house can have an even chance of getting the work upon the foundation of the Federation scale, which is, of course, binding upon every other purchaser.

The Secretary reported that an examination of his books showed that every member had paid up all the subscriptions and dues to the end of the year, and that he was sending out the notices for the subscriptions for 1918.

It was exceedingly gratifying to the Council to know that there was not one defaulter in the whole of the trade, and it speaks well for the success of the movement, and is a complete justification of the wisdom of the steps taken just a little more than twelve months ago, which have had the result of placing the trade in a position so much superior to that it held previously, and there is no doubt that the subscriptions now due for 1918 will come in with equally gratifying promptitude.

During the month two more of the outstanding houses have joined up, thus making the circle more complete, and we look forward to the time when there will not be a single exception.

One firm has resigned, having given up the making of process blocks, and turned its attention to other classes of work. This is the only house that has gone out of the trade since the Federation was established, an eloquent commentary upon the value of combination.

Correspondence on various matters has been carefully considered, and it is strange how many questions can come up for settlement in a trade of such restricted scope as that of process. One query was, What is the definition of the distinction between Bank Holidays and local holidays, where Bank Holidays are not observed but local holidays were substituted? One would hardly have thought that such a question could have arisen, but it shows the working of different minds in varying parts of the country.

Then a question was raised as to whether it was allowable to give an extra discount for prompt cash, notwithstanding the rule that requires monthly payments, in order to secure the definite scale of discounts laid down in the rules of the Federation, which are absolutely inclusive and final.

Of course, there were the usual puzzles as to charging up peculiar pieces of work. There must be many inventive minds at work doing their utmost to produce complicated situations, but so long as they do not mind paying for the work they demand the process engraver is quite content to do anything required. It would be very useful to form a collection of these difficult subjects, and a study of them would be very interesting.

The position re gun-cotton, alcohol, methylated spirit, etc., etc., is being carefully watched, and the Council is taking such steps as in its judgment are most expedient so as to safeguard the interests of the trade.

All your Greek will never advance you from secretary to envoy, or from envoy to ambassador; but your address, your air, your manner, if good, may.—CHESTERFIELD.

Something for Nothing.

How an Engraving House dealt with an Invitation to submit Sketches.

EVER and anon some hopeful person who should know better is possessed of a consuming desire to obtain something for nothing. Too evidently the profound philosophy of Sis Hopkins, who quoth "You can't git nothin' from nobody for nothin' nohow" fails of its deserving credence. Much too plainly is seen a disposition to flout the axiom that that which costs nothing is worth nothing.

Before us is a pertinent illustration. Omitting identifying names we quote from a letter recently received:

"We anticipate issuing a new bicycle tyre folder, and if you would like to make us a preliminary sketch incorporating your suggestions along this line, without obligation to us, we would be glad to consider it when we are ready to buy the plates for this folder.

"Should you desire to submit such a sketch please quote us at the same time on the plates necessary to work out the idea. We had figured on making this eight pages and would illustrate four of our most popular tyres somewhat after the manner in which the tyres are illustrated in the folder which we are inclosing herewith. We would anticipate furnishing retouched photographs of the tyres themselves so that it would not be necessary to consider this work in connection with the rest of the plates called for in the design."

After which we print our reply, to wit:

"Your letter of September 25th, advising us that you anticipate issuing a new

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bicycle tyre folder and inviting us to make up for you a preliminary sketch, without obligation on your part, is before us.

"We thank you for giving us the opportunity of submitting a design for your cover, but wish to inform you that we do not make up sketches unless we are given the order. However, if the first sketch is not satisfactory, we are always willing to try again until we satisfy our customers.

"The reason for this you will readily understand. We have to pay our artists regular salaries and we can ill afford to enter into a speculative competition.

"It would be just as reasonable on our part to ask you to send on a set of tyres to try out in competition with other tyres from other manufacturers, having in mind only the purchase of one set of tyres."

Let us analyse the proposition.

The invitation to devote much gray matter, time, material, wages, postage, etc., to a speculative enterprise was probably extended to other engravers. It came to us from a distance of 95 miles, other large engravers being closer by.

Suppose it went to ten, and that all ten yielded to the enticing prospect of a problematical order. Say each spent at least \$10 cost-worth of time and material to suggest an idea that when made up into plates (with the necessary additional expense of the drawing, engravings, etc.) might sell at say \$30 or \$35. To cater to the untrustworthy caprice of an inexperienced or too crafty buyer, \$100 would appear to have been the production-cost of the waste this person created—or \$300 (or more) the amount of selling-value thrown into the discard.

Has anyone a moral right to ask such a thing? Would he ask ten doctors to tell him what to do on approval? Or ten lawyers to take his case in competition

and further subject to his approval? Or ten colleges to teach him wisdom subject also to his approval? Or ten tailors to outfit him like Solomon in glory contingent upon uncertain payment?

Why, even the advertising agencies that used to be the greatest offenders in volunteering seductive plans for miraculous business building campaigns, "free gratis for nothing," are reforming. Many of the better agencies never did this. Certainly no self-respecting agency to-day, with nothing but its brains to sell, will gratuitously compete on such a basis with others who have nothing else to do.

There is nothing truer than that the workman is worthy of his hire. He may not always get the full measure of his value—which may be a matter of fettering tradition or poor bargaining—but he cannot be expected to work without price.

Our friend who extended the invitation probably never looked at the matter in this light. He may not like our attitude, but we dare say that he will have a new and truer respect for us and not hereafter class us with those unable to sell their services otherwise than by such "opportunities" as he extended.—*The Eclipse*.

Continued from page 20.

activities might be of the greatest use, as of course there must of necessity be a great deal of intercourse between the people on the spot, who had no knowledge of English, and the new comers.

In this position he has served ever since, rendering most excellent service in a congenial atmosphere, and to the great satisfaction of his officers.

For holidays he seems to have lost any previous liking he may have had, for during the last two or three years he has had but two short periods of leave.

Commercial Photography.

PHOTOGRAPHING GLASS, CHINA AND SILVERWARE.

BEFORE you take up any branch of commercial photography, you should collect all the manufacturers' catalogues you can lay your hands on. They will give you an indication of the enormous number of photographs required, and, at the same time, show the quality of work that will be expected from you.

Look, for example, at some of the catalogues of glass, china and silverware. You will see that the standard is very high, but that there is plenty of work for the expert. It is difficult work, and to do it successfully you must have considerable practice. There are many little dodges of lighting that you can only pick up by actually doing the work. The subject is rarely dealt with in text books or magazines.

The main difficulty in photographing any object with a highly polished surface is to avoid unnecessary reflections. Photographers are sometimes advised to dull the surface by dabbing it with putty or some other oily substance, and, after the photograph has been taken, to clean it again with petrol and a soft brush. All this advice about dulling such highly burnished articles as silverware should be taken with reserve. There are, no doubt, instances when expedients of this kind may be resorted to, but they should never be tried without the full knowledge and consent of the customer. The most brightly polished articles are, of course, the most difficult to deal with, and they are just the ones that will not stand the rough treatment recommended. Polished silver, for instance, has a most

delicate surface, and even the slightest scratch will call for a considerable amount of repolishing.

Apart from the risk of doing serious damage, the practice of dulling the surface takes away from these articles what is probably their greatest attraction. In fact they cease to be polished articles at all. A beautiful piece of cut glass, for example, attracts attention by the way the light is reflected from the different facets or cuttings. A common method of "preparing" cut glass for photographing is to spray it all over, by means of the air brush; with a mixture of deep blue or pale yellow aniline dye, gum and water. This makes the taking of the photograph a very simple matter, but the result cannot show the transparency of the glass or the sparkle of the facets. In fact, the photograph will convey an impression of an article made of some smooth chinaware, faintly translucent but no longer transparent.

A manufacturer wants a transparent article to look transparent, a polished article to look polished, in the photograph. He cannot get what he wants if the photographer deliberately makes the bright surface dull and lifeless. It is chiefly by the way an object reflects the light that the nature of its surface is indicated.

Some means must be found, then, of reducing the reflections without altering the reflecting surface. Reflected light must be cut down as far as possible by using a yellow light filter; and, of course, with the filter a panchromatic or orthochromatic plate must be used. Then,

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reflections of surrounding objects must be prevented by screening the article with calico, tissue paper or fine muslin. This is best done by making a tunnel of white calico, similar to the one recommended in another issue for photographing polished furniture. The object to be photographed should stand inside the tunnel, so that all the light that reaches it will be diffused.

It is impossible to lay down a general rule which will apply to all polished articles. The beauty of some is best brought out by reflected light, whereas the essential beauty of others can only be shown by transmitted light. In these cases, where the transparency of the article must be emphasized, it is often a good plan to have the tunnel run towards a window, from which it would be separated by a piece of ground glass or tracing paper that would serve as a background. This arrangement brings out all the sparkling transparency of the object.

Cut glass should be treated in a slightly different way. The same background may be used, but something more is wanted to show up the facets to the best advantage. A very good plan is to get a wooden box about a foot deep; take off the lid and knock out the bottom, and then line the inside with black velvet or any other smooth black or red material. Stand this on its side in front of the background, and place the cut glass object inside. Some of the facets will reflect the dark material, others will reflect the white light, with the result that the cuttings will show up clear and sharp.

Glass articles with very fine engraved work may be "prepared," quite legitimately, by rubbing into the engraved lines a little powder, such as rouge or the black powder used by jewellers, and afterwards

wiping and polishing the plain surfaces. This does not destroy the transparency of the glass, it simply makes the engraving stand out better—a point of the greatest importance in catalogue work.

Another difficult object, one that requires the greatest care in lighting, is a piece of painted china with a glazed oval surface—for instance, a cup and saucer or a rose bowl. In these cases, of course, there is no question of transparency. The calico tunnel may be used with a light or dark background according to the colour of the china. The difficulty is to prevent the high light from coming on an important part of the decoration. A top light is usually the best, but sometimes a side light is necessary. The drawing or perspective can be greatly helped by letting a streak of light fall on the rim of the bowl; this also helps to give life and sparkle to the photograph.

In catalogue work, there are certain recognised positions for pieces of china; and much time will be saved by making yourself familiar beforehand with what the manufacturers want to show. For example, a cup and saucer must show the back as well as the front edge at the top. This means that they must be tilted a little towards the camera, or the camera placed so that it looks down on them. When you tilt the camera, don't forget the swing back.

Perhaps the most difficult objects of all are pieces of burnished silverware. Their surfaces are like so many mirrors, reflecting windows, furniture, camera—in fact everything within range. You cannot do better than stick to the calico tunnel. This will do away with the patchy appearance but will not rob the article of its brilliance.

Probably the best way to photograph

such articles as knives, forks and spoons, is to lay them on a flat board, covered with velvet, paper or cardboard. The colour can be varied so as to give any desired background. The camera must be fixed in a vertical position so that it looks down upon the cutlery. With this arrangement you will need to diffuse the light which falls on the objects ; and, furthermore, the light should come from a very low point so that it strikes them on their sides. The great advantage of this method is that it enables you to make quite a number of negatives without the delay caused by fixing the objects to a wall or upright screen.

The great merit of photography is that it gives a realistic and convincing representation of the goods advertised. If a manufacturer cannot show his customers the actual silverware or glassware, the next best thing is to show them photographs of it. And so photographs are rapidly replacing the line and wash drawings that used to hold the field in all illustrated advertising. Until recently the artist had it all his own way, especially in the domain of showcards—but much better showcards are now being produced by co-operation between the artist and the photographer. A good example of this is to be seen in a recent series of cards advertising silver knives, forks and spoons. The artist designed the wording and decorative scheme, but left blank the spaces in which the goods themselves were to be shown. The cards were then laid flat and the knives, forks and spoons placed in position on them. By very careful attention to lighting, the professional was able then to obtain some very striking photographic cards on which the silverware appeared to stand out in bold relief.

Professional Photographer.

Effects of Contrasts of Colour.

"**W**HAT a mess!" exclaimed the Artist, picking up a large circular that had just come in from a printer who, so his circular said, specialised in colour-printing. "How those colours clash and offend! He must have shovelled the red on to that sheet."

The Advertising Man refused to get excited. "It may be possible, you know," he said gently, "that the people to whom he is sending his circular demand that mess of colour."

"Look at that Italian woman down there on the river bank," he went on, pointing to a woman surrounded by half a dozen dirty children. "Her waist is a startling red. Her skirt is probably a greenish-black. She thinks she is well dressed."

The Artist started to speak.

"Wait a minute," went on the Advertising Man, holding up his hand. "As a matter of fact she is well dressed for a woman of her class. All people who are not far above the barbaric stage love the primary colours. I remember reading something written by Will Bradley in which he said that the peasant woman would wear a green skirt and a red waist, but that the more refined woman would wear a complete suit of dark green, almost black, with just a touch of red in a bow or a red rose."

"But what has that to do with this circular?" asked the Artist.

"It may have nothing to do with this particular circular," explained the man of advertisements. "This may be the expression of ignorance. The chances are

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that there is little knowledge back of it. But it is also possible that this printer is sending these circulars to a lot of business men of peasant-woman intelligence, and that the circular whose colour combinations would please you would produce no effect whatever upon them."

"You are right," said the Boss, who had been listening. "I knew a man who had done special work for high-grade jewellers. He had worked with hand-made paper, light-faced types, and delicate colours. He was asked to get up something for a man who was selling something to small-town butchers. I've forgotten what it was. Well, he got up a dainty booklet that was typographically faultless. It was a beautiful thing. But it failed to land a single order."

"I have to laugh when I think of the rage that specialist was in. 'The swine!' he raved. 'I'll give them something they can understand.' So he got up a whopping big circular printed from big type on butcher's paper. There were crude illustrations with laughs in them. The language was rough. The colours were startling. But that circular got the business."

He walked over to a filing cabinet and brought back a sheet of paper. "Here," he said, "is something I filed away a year or so ago. It is a table of colours—combinations in the order of their excellence. Will Bradley is responsible for it." This is what that sheet contained:

EXCELLENT.

Normal red with blue	Yellow with violet
Orange-red with blue	Greenish-yellow with violet
Orange-yellow with violet	

GOOD.

Scarlet with turquoise	Orange with turquoise
Scarlet with blue	Orange with blue-green
Orange-red with violet	Orange - yellow with purple
Orange-red with turquoise	

Orange with violet	Greenish - yellow with normal blue
Orange - yellow with blue	Yellowish green with blue
Yellow with purple	Blue-green with violet
Greenish - yellow with purple	

GOOD, BUT STRONG.

Normal red with blue-green	Orange with blue
Normal red with green	Yellowish-green with normal red

FAIR.

Normal red with green-yellow	Orange - yellow with turquoise
Scarlet with green	Greenish - yellow with orange-red
Orange-red with yellow-green	Blue-green with purple.
Orange-red with purple	
Orange with green	

STRONG, AND HARD.

Greenish-yellow with scarlet	Normal green with purple
Normal green with orange-red	

POOR.

Normal red with yellow	Yellow with normal red
Scarlet with yellow	Yellow with turquoise
Orange-red with blue-green	Yellowish-green with purple
Orange - yellow with blue-green	Normal green with scarlet

BAD.

Normal red with violet	Normal green with turquoise
Scarlet with violet	Blue-green with blue
Orange with purple	Blue-green with green
Orange - yellow with green	Blue-green with yellowish-green
Yellow with blue-green	Blue-green with turquoise
Yellow with green	
Greenish-yellow with turquoise	

A choice in combinations of colour which are not in accordance with the rules of harmony or contrast:

Red with yellow is better than red with orange.

Red with blue is better than red with violet.

Yellow with red is better than yellow with orange.

Yellow with blue is better than yellow with green.

Blue with red is better than blue with violet.

Blue with yellow is better than blue with green.

Red with violet is better than blue with violet.

Yellow with orange is better than red with orange.

Yellow with green is better than blue with green.

The Printing Art.

Mere Orders Takers.

Do any English process houses know this class of Traveller?

SCENE—an advertising manager's office. Time—any business morning. The A.M. discovered at his desk giving audience to a number of printing shop representatives.

There's material for a business drama!

It's a little play that is produced year in and year out, season in and season out, from one generation to another.

There's always the same old apprehension—the same old hour of suspense.

Nobody is quite sure of where he stands.

Nobody can tell for a certainty which way the order is going to jump.

"Can't we do something to clinch their next catalogue?" inquires the Big Boss of the printery. "We did it last year and they ought to give it to us again."

If you could be present in spirit form and could hear the words of this exciting drama, the revelations made would surprise you. Methods of salesmanship and approach have not advanced much since Ben Franklin set type.

The high bicycle and the hoop skirt and woollen mittens have become almost obsolete, but the basic idea of obtaining printing orders goes merrily on without any noticeable signs of improvement.

Mr. Advertising Manager has allowed it to be noised about that his firm will shortly issue another edition of a very fat catalogue. The printing order is a highly desirable one. And straightwith, from far and near, swarm the printing salesmen. They want that order. It is a perfectly legitimate desire on their part, but we question very seriously the bait they put on the hook.

Suppose we set down in shorthand some of the pet appeals:

"We have the largest shop in town."

"Our art department is better than the other fellow's."

"Our illustrations are the best it is possible to produce."

"We printed it last year—why not this?"

"We do all of Jones-Brown & Co's printing."

"Our foreman has designed a new fount of type."

"We've handled so much of this kind of work that we know how to do it better than anyone else."

O you Order Takers! O you lazy fellows of the line of least resistance! When will you learn that the way to GET orders and KEEP them is to come each season with a new and better IDEA for the job. You'll find precious little competition THEN.

—From *The Acorn*.

British Industries Fairs, 1918.

As it is possible that the new accommodation for the British Industries Fair (Glasgow), 1918, may not be entirely completed by February 25th, and as it is of great importance that the British Industries Fairs in London and Glasgow should be held simultaneously, the Board of Trade have decided to postpone the opening of both Fairs for two weeks.

Accordingly the period for which the British Industries Fairs in London and Glasgow will be open will be March 11th to March 22nd.

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THE NORTHERN ENGRAVING Co., of Manchester, have sent us a copy of their really serviceable block calendar for 1918, issued for the use of their clients.

It is one of the most useful calendars we receive. It is bold, clear and exceedingly useful, and as a reminder of the go-ahead methods of the company, it should be of great use in helping to keep their customers in mind of the fact that the Northern is always there.

THE PROFESSIONAL PHOTOGRAPHER, issued by Kodak, Ltd., is as near perfection as a publication as it is possible to get. Printed on really first-class paper, the illustrations are shown to perfection. They are always specimens of the high-class work of the firm producing them, and both the publishers and the process house are to be congratulated upon the successive issues.

When everything on the mechanical side is of such high character, one naturally expects the literary side to be equally good, and in this the reader need feel no disappointment, for it is equal to all the rest.

By the way, have the "By the Receptionist" articles come to an end? We hope not. We made a practice of looking at these first. They were so bright and cheery, and gave us many an inspiration.

THE CHRISTMAS NUMBER of the "Church Weekly Press" is as usual a really effective and well-produced annual. It is a first-class picture gallery of New Zealand scenes, well conceived and well executed.

It is without doubt one of the finest specimens of illustrated annuals that comes from anywhere overseas, and would do credit to any house in this country.

The process blocks by which it is illustrated throughout are very fine specimens of process work, and show that our craft-men in the Colony are fully alive to the importance of good work.

Neither is it all black and white, for there is a really good three-colour plate given away with the number, which is well done and has a very fine effect. We congratulate the publishers upon the success of their undertaking.

THE AUCKLAND WEEKLY NEWS CHRISTMAS NUMBER is not one whit behind its competitor about which we have said a few good things, every one of which is likewise applicable to the Auckland weekly, which consists of 64 pages, the size of the "Graphic."

The illustrations are numerous, and every page shows signs of care and thought having been bestowed upon the get-up, and it is very evident that a considerable amount of trouble has been taken to make the issue a very successful one.

We congratulate all concerned in the production of so splendid a piece of work, and are delighted to know that the process department of the paper sets so high a standard at which to aim.

THE AMERICAN PRESSMAN, a journal devoted to pressmen, presswork, etc., continues its successful career, and in a recent number the President of the Men's Union strikes a most hopeful note as to the outlook if the men in the trade live up to the privileges of the position.

He says: "There is no denying the fact that the world is a better place to live in than it was in the time of our forefathers. . . . Industry has its only reason for existence in that it is to give to the human family happiness and a life of satisfaction. More than ever before in the history of the world the feeling exists that our greatest obligation is doing for society that which will make society better, with the Christian purpose in view of leaving a better environment to those who are to follow us. In the interest of a better citizenship, in the interest of a more thorough knowledge of Christianity, to the end that economic satisfaction may prevail, the organised labour movement must exist."

The President, also, in his annual letter to the members of his Union, points out to them the duties as well as the privileges that devolve upon them, and says: "The individual members cannot by any stretch of imagination escape their duty or their obligation to the Union and through the Union to the industry. . . . That any changes which economic condition seems to call for, can only be secured if the industry can be shown to be in a position to pay such increases and that this can only be ascertained through negotiation and investigation of the facts by the Unions' representatives, together with representatives of the employers, and that contracts or arrangements when made must be held by both sides to be sacred even if one side finds out that they have not made the best bargain possible, as in the nature of things it is not possible that Union officials shall always make the best possible contracts, for mistakes are inevitable in every walk of life."

With such teaching as this which so completely accords with the practice of the process engravers' Unions of this country, we very heartily agree.

PARSON'S HANDBOOK OF LETTER HEADINGS, issued by the Parson's Paper Company, shows some very neat and very attractive headings, specially prepared for use on their Old Humphries papers.

This manual of text matter, principles of arrangement and standards in style, etc., will be found to be extremely useful by the printer who is so fortunate as to possess a copy.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

A Few Words of Advice to Process Engravers.

Lessons taught by the Fatality at Milford Lane.

By E. W. Hunter.

THE Editor has kindly given me space in our trade journal to say a few things with reference to the very sad and tragic accident that happened at Milford House on Friday, the 1st February, 1918, for I feel it would be wrong of me not to draw the attention of proprietors of photo-engraving firms to certain precautions which should be immediately taken in every firm throughout the country which is to-day using nitric acid, and I may say I hope that everyone, after this very serious accident, will take immediate steps to instal these precautions, especially as they are simple and inexpensive.

Firstly. It appears to me that all firms should order their nitric acid in either five-gallon carboys, or 56lb. or 28lb. jars, instead of in 10 gallon carboys as is usual. I have found on enquiry that these small jars can be supplied even to-day, but in ordinary times I feel sure the engraving houses have only to insist on small carboys of 5 gallons and the makers will supply them. The reason I consider the small carboys so important is because the risk in the event of a carboy bursting or

breaking, is reduced by about one-half.

Secondly. If carboys of nitric acid are being delivered in frosty weather, the storekeeper, or whoever receives them, should examine them carefully in the conveyance before they are taken into the building, and probably by gently tapping the top of each carboy he would be able to find out whether it is broken or not.

Thirdly. Two or three simple kinds of gas masks should be kept at hand, locked in a sealed box, with a glass door that may be easily broken, in such a position that everybody could get at them if required. I understand that Messrs. A. W. Penrose & Company have already been able to supply such masks.

Near where the acid is delivered and stored, several pails of earth should be kept handy, or perhaps better still whitening, chalk, slaked lime, or cinder ash and lime would also answer the purpose. In the event of a breakage any of these materials should be thrown quickly on the acid, the effect of which is to immediately neutralise the action of the acid. When

the acid is neutralised or killed, the ashes or other matter can be removed. I am also given to understand that a pail of liquid potash is a very good thing to keep near where the acid is stored.

In discussing this matter with the makers of nitric acid they tell me that in the event of anyone being overcome by acid fumes they have found the very best remedy to be four or five drops of chloroform in a wineglass not quite filled with water, which should be given immediately after inhaling nitric acid fumes, and repeated at an interval of ten minutes. If the person is not better then continue to repeat the dose at ten-minute intervals, but the second or third dose should bring about improvement. The chloroform mixture should be well stirred, and the person drinking it should hold his head well back so as to thoroughly drain the glass, as the last few drops are likely to contain the most chloroform, which is apt to settle quickly to the bottom of the glass in oily globules.

SYSTEM, in one of its recent issues, gave a study of nearly 1,000,000 pieces of sales letters, from which were deduced the following six rules for successful letters: (1) Never assert in any way in your letter that which is debatable or untrue. (2) Never check or interrupt the steady flow of your prospect's thought. (3) Make your letters easy to read. (4) In every letter give or imply all the facts about your proposition that the reader could possibly want to know. (5) Avoid confusing the prospect by presenting to him a series of propositions from which he must make a selection. (6) Make your letter portray advantages to be gained instead of evils to be avoided. Be positive rather than negative.

The Man who Attempts to Go it Alone,

*Asks Nothing, Gives Nothing,
Pays Dear for Experience.*

WHEN a number of men gather together to promote some object which has for its purpose the good of all, this gathering should have the earnest support of everyone whom this association will benefit.

Great achievements have never been accomplished by one mind but by several minds, and great deeds have been performed not by a single unaided effort but by the united efforts of several.

The man who attempts to go it alone, to work out his own problems from his own experiences, who asks nothing from anyone and gives nothing back to the world, pays dearly for his selfishness.

No man's mind is broad enough or big enough to grasp and find a solution for all the problems that come up, and no mentality is strong enough to successfully cope with all the complex and many-sided questions that require an answer.

"Come, let us reason together," has come down through the ages with ever increasing meaning until to-day it is recognised as about the most essential thing in success.

The man who succeeds to-day from his own initiative does so in spite of the helping hand extended by the association of other men's ideas, other men's plans, and other men's suggestions, with his ideas, his plans and his suggestions.

So clearly has this fact been established that the biggest, brainiest men, veritable captains of industry, are not heedless of even the observations of an elevator boy or the porter.

A Hero in City Life.

Mr. W. A. Stevens, Assistant General Manager at André-Sleigh & Anglo, Ltd.

WE hear a great deal nowadays about the heroism displayed on the battle field, and rightly so, but we sometimes fear that heroism in the more common walks of life fails to receive its due recognition, yet the same quality is to be found in the hero or heroine in either case.

That the subject of this notice deserves to be placed in the front rank of those who have done noble unselfish deeds we think our readers will unanimously admit.

Mr. W. A. Stevens, the Assistant General Manager at the André-Sleigh & Anglo organisation in Milford Lane, joined the firm some eight years ago as the head of the half-tone etching department, and so favourably did he impress his directors that when an opening occurred by which promotion was possible, he was made Works Manager, and afterwards Assistant General Manager, in which position he did faithful and valuable service.

Mr. Stevens was one of those noble characters who put duty and loyalty first, in fact loyalty was the outstanding attribute of his character. He was ever loyal to his firm and found his delight in promoting its interests in every way possible. Slight of build, with an earnest

gleam in his eye and a marked business ability, he seemed destined for high position in the business world, notwithstanding his quiet and unobtrusive demeanour, which, as events proved, were but the coverings of a noble soul.

When the moment of crisis came, Mr. Stevens was not found wanting, for he literally gave his life for his fellow man.



MR. W. A. STEVENS.

On another page we refer to the sad accident at Milford Lane, in which a carboy of nitric acid was accidentally broken, and finding its way down into the basement and coming in contact with two corrugated iron dustbins and their contents, gave off poisonous fumes, which proved fatal to two members of the staff.

Directly Mr. Stevens was informed that a carboy had burst, he immediately left his office and went down to the basement, calling on his colleague, Mr. Wise, to help him go to the assistance of the storekeeper. They eventually diluted the acid and got rid of the dangerous fumes which were spreading throughout the building, but alas not before they had done their deadly work, for it very soon became apparent that the storekeeper was very seriously attacked and was therefore sent to his home.

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This done, Mr. Stevens resumed his duties, but soon realised that he also was under the influence of the gas, which had attacked his throat, and was also immediately removed to his home, where he succumbed to the effects of the poison, just about the same time as did the other member of the staff.

Our deepest sympathies go out to his widow and we pray that she and her children may find comfort in the remembrance of the noble act that has brought them so much sorrow, but which has given us so splendid an example of heroism in the ordinary walks of city life.

Novel Advertising.

A NOVEL idea in direct advertising was recently circulated by a paper supply house. Upon opening the mailing envelope the recipient withdrew another envelope bearing the words, "Our Purpose——". On opening this envelope, another one was withdrawn bearing the word "Is——". Inside of this envelope was a card containing the rest of the sentence, which completed the advertising message.

Of course, very much of this sort of advertising would be tiresome to the recipient, but occasionally it affords variety and may possibly prove to be effective publicity.

Astonishing how few people ever go to the head of a business and say, "I want more work. I haven't got enough to do. Give me a bigger job, so I can have more chance to make good. Let me work harder. Never mind the salary. You'll attend to that, after I've shown you what I can do with the job."

Don't Watch the Clock.

A CANADIAN business firm has hung in a conspicuous place in its works the following "Ten Demands" for the benefit of employees:

1. Don't lie. It wastes my time and yours. I am sure to catch you in the end, and that is the wrong end.

2. Watch your work, not the clock. A long day's work makes a long day short; and a short day's work makes my face long.

3. Give me more than I expect, and I will give you more than you expect. I can afford to increase your pay if you increase my profits.

4. You owe so much to yourself you cannot afford to owe anybody else. Keep out of debt, or keep out of my shop.

5. Dishonesty is never an accident. Good men, like good women, never see temptation when they meet it.

6. Mind your own business, and in time you'll have a business of your own to mind.

7. Don't do anything here which hurts your self-respect. An employee who is willing to steal for me is willing to steal from me.

8. It is none of my business what you do at night. But if dissipation affects you the next day and you do half as much as I demand, you'll last half as long as you hoped.

9. Don't tell me what I'd like to hear, but what I ought to hear. I don't want a valet to my vanity, but one for my dollars.

10. Don't kick if I kick. If you're worth while correcting you're worth while keeping. I don't waste time correcting specks out of rotten apples.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C.

Vice-President—

MR. F. H. VAUS,
Messrs. Vaus & Crompton, Ltd.,
Kirby Street, London, E.C.

Treasurer—

MR. EDWARD W. HUNTER,
André Sleigh & Anglo Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C.

Telephone: 5596 Bank.

Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an Open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

CAUTION.

Owing to the continued shortage of copper, process engravers are advised to use this metal as economically as possible, and wherever possible to use zinc instead.

The last ration of copper given out by the Committee exhausted the entire supply in the country, and it is impossible to say when the next supply will arrive.

The Council at Work.

DURING the month there has been three meetings of the Council, also several meetings of the sub-committees, the attendances at which have been fairly well maintained, notwithstanding the great difficulties that confront those in charge of the various businesses represented, while in some cases illness has prevented attendance.

At the first meeting after the joint conference with the delegates of the Men's Society the few outstanding matters were reviewed, and arrangements made by which it is hoped that the smooth working of the agreement may not only be maintained, but, if possible, improved, to the greater benefit of all concerned.

With this end in view a sub-committee was appointed to consider the question of apprentices and their remuneration, and suggest a scheme they consider reasonable so as to bring about a fairly uniform scale throughout the trade, it being felt that the time had arrived when this question should be put upon a sound basis, so as to bring the best possible class of youths into the trade.

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A question of considerable importance was further considered, viz., the attitude of H.M. Stationery Office to the trade in reference to the terms of their contract. So much importance did the Council attach to this question that they deputed the President and a member of one of the most prominent houses in the trade to interview the department with a view to getting their present system set aside, and adopting the schedule as laid down by the Federation as the basis of all further contracts.

The deputation secured an interview, and laid their case before the head of the department with such clearness and effect that they secured a definite promise that all future estimates should be called for on the lines of the Federation scheme, and that contracts should be entered into on that basis.

By succeeding in this matter the Council have made it possible for every house in the Federation to tender on equal terms, so that no house shall in future have an advantage over any other, except it be in the matters of quality and service, which of course are of great moment to the department concerned.

Should houses in the Federation give support in any way to the few who elect to stay outside and turn a deaf ear to all invitations to join up with their competitors? was a question put to the Council.

The Council takes a strong view on this question, and considers that no Federated house should give support to any non-federated house either by working for, or giving work to, such house.

That such a course is perfectly reasonable should be apparent to all, for if certain houses will not assist in helping forward the work of the Federation, upon which so much labour and money have been expen-

ded, why should they reap any assistance from those in the Federation?

It is hoped that all members will bear this matter in mind, and act in accordance with the suggestions made should they be applied to by a house in need of such assistance.

It is not always that work such as that being done by the Federation meets with generous recognition from those outside the circle. It was, therefore, a pleasure to have a communication from one of the houses who had not hitherto joined up, saying that they had watched the progress of the work, and being convinced that the Federation had accomplished that which it set out to do and had done it most successfully, they were therefore pleased to join in the good work and become members of so successful an organisation. They were, of course, cordially received, and the Council appreciate this expression of approval.

In consequence of the general agreement come to at the joint meeting of the Council and the Men's Society re apprentices and those returning from the war, the dilution of labour, and one or two other matters that will help make the agreement more satisfactory all round, it was decided that the further 2/- per week increase to the employees previously promised should be paid on the first pay day in February, and the Secretary was instructed to convey this information to all the members of the Federation, thus bringing the war bonus up to 7/- per week.

A matter that vitally affects the smooth working of the Federation scheme is that of the Secretaryship, the office staff, and the accommodation provided. When the present Secretary took over the duties of the old Association it was felt that only a very limited amount would be available out of which to pay for the necessary

expenses. Consequently the Council had to go warily to work. But when the Federation scheme was brought into being the volume of work increased so enormously that it soon became evident that it was out of the question to expect the work to be done at the figure agreed upon, therefore the matter has had to be reviewed from time to time, and payment made for the extra work done. Seeing that the clerical work alone more than fully occupies the time of a competent clerk, and when it is remembered that there are nearly one hundred committee meetings to attend during the year, and all the records to keep in good condition for reference, beside conducting a very voluminous correspondence and providing office accommodation as well as a Board Room in which to hold our Council meetings, it will be readily understood that such service, etc., must be adequately paid for. It was, therefore, the unanimous resolve of the Council that an amount considered fair by all concerned should be paid to the Secretary for his services and accommodation provided, and as Mr. Manley expressed himself satisfied with the arrangement we may look forward to another year's earnest work by him on behalf of the Federation.

Among the correspondence was the usual number of detail questions, many of them of individual application only, in some cases showing an evident desire by the customer to secure benefits for himself by offering extra prompt payment, grouping orders, and such similar manoeuvres, to all of which there could be but one reply, viz., the schedule of prices and discounts as laid down by the Federation must be strictly adhered to, for in no case can the Council sanction any departure from the regulations as printed for the guidance of the trade.

One feature of the correspondence has a tinge of sadness in it: that is the need of more skilled labour. The Council is constantly being asked if it can provide men for this, that and some other department, but as neither the Council nor the officials of the Men's Society have any names on their waiting lists, it is quite evident they cannot give the help asked for. It would be a great pleasure if it were possible to provide the trained men required, but as the supply is not equal to the demand, there is but one answer that can be given to all such applications.

Another interesting point raised in some correspondence was in relation to the question of discount in cases where blocks are delivered to several depots all under one control and paid for by one central office. The question raised was, Should this account be treated as several different accounts or treated as one, as if treated as one it would come under the rule allowing a further 5 per cent. discount on amounts over £1,000 per annum. The decision of the Council was that such an account quite properly came under the rule, and the engraver would be quite correct in allowing the extra 5 per cent. on amounts beyond £1,000.

Another matter that arose out of the correspondence was as to the course that should be pursued when by mutual arrangement an employee worked the week he is entitled to as holiday.

It appears that owing to the condition existing in the trade some houses are pleased for certain employees to continue at their work rather than take the week's holiday arranged under the agreement, and in some cases employees prefer not to take the holiday if they can be permitted to work and receive extra pay.

In such cases where the arrangement is one of mutual interest, the question asked

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was, Should the employee in addition to drawing double wages for that week also draw double bonus, or was he entitled to one bonus only? The decision of the Council was that in the interests of all concerned, and with a view to securing that harmony so essential between the employers and employees, it would be preferable to pay the double bonus as well as the double pay, a decision which we think will meet with general approval.

The question of the export of half-tone blocks on copper was once more raised, there seeming to be an idea current that these could be sent abroad without a license. Every engraver will do well to bear in mind that the sanction given by the Ministry of Munitions for the importation of copper, was subject to such copper being used for "the home trade only," so that Board of Trade licences to export copper blocks should only be applied for under the most exceptional conditions. In such cases it is advisable to first obtain the sanction of the Federation.

An invitation was received asking the Council to appoint delegates to a meeting to be held at the Guildhall to discuss Industrial Reconstruction. It was soon evident that so great was the interest in the matter that practically the whole of those present desired to attend the meeting. It was therefore decided to apply for tickets for all who desired them.

CONTINUITY is the secret of success of most princes of commerce. Many a young man has struck a brilliant idea but has lacked the continuity to turn the idea into a successful business proposition. In other words, sticking at it wins in the end.

Acetic Acid Substitute.

By W. T. Wilkinson.

SHORTAGE of acetic acid and of methylated spirits has recalled to my memory a solution composed of gelatine and sulphuric acid, which I used with great success in India, and in England; in India because I was in a station cut off from civilisation on account of cholera in the native compound. In England I used it at intervals when I had time to make it up, because I had previously found out its good qualities.

The formula is simple: To three ounces of water, add one fluid ounce of sulphuric acid, adding the acid slowly and with plenty of stirring (a small jug or cup is the best kind of vessel to use). Let the mixture get cold, then add one ounce of gelatine, or one of fish glue. If gelatine is used, give it time to swell, then stir until dissolved. If fish glue is used, stir into the acid water at once.

Next put in some tiny bits of zinc and allow to stand (with occasional stirring) for two or three days, or until the zinc no longer gives off gas bubbles. Now filter and dilute to make twenty ounces, and when making up a winchester of iron developer use 4 ounces of the above, neither acetic acid nor methylated spirit being required; or the three or four ounces of iron sulphate may be dissolved in seventy-six ounces of water, then $\frac{1}{2}$ a dram of liquor ammonia added, shake up well, and add the 4 ounces of the sulphuric gelatine restrainer, and the developer is ready for use. The action of such a developer is somewhat slower than the ordinary developer, but the image is much denser, and there is an utter absence of fog.

Another formula I have used which also gives good hard negatives is :

Water	20 ozs.
Iron Sulphate	1 oz.
Bisulphate of Potash ...	1 oz.

But this sometimes calls for the addition of either spirit or of sugar or treacle.

Process Work Preparedness when Peace comes.

PEACE must come some day. Just contemplate a few of the prospects for process work when it does arrive. Think of all the maps of the world that must be re-engraved ; geographies that must be made over ; school histories which must be re-illustrated. Imagine all the " Pictorial Histories of the War," when censorships are removed, made from the piles of negatives now under cover or that will be made. When the factories of the world turn from the manufacture of destructive articles to those that are constructive, they will require tons of engravings to illustrate the circulars that will be required to sell the goods, and the same can be said of the great rush of imports. Besides this, the fluctuation in prices and other causes have held up manufacturers' booklets and catalogues and these will be wanted in a hurry. Wall Street, which is usually wise to future events, shows signs of preparations for peace this Winter. It behoves process workers to keep their plants up to the height of efficiency so as to be prepared for the big business when it comes. — *Inland Printer*.

Get a Big Cheque?

PROCESS ENGRAVERS in this country have been accused of forcing prices up beyond what is really necessary, but that the accusation is groundless goes without saying, at any rate to those who have the management of engraving houses, for we believe it is an impossibility to find one who will be called upon to pay excess profits duty, unless it may be one very recently started.

On the other side of the water, however, they seem to do things differently, for in the latest issue of " The Eclipse," which is the organ of the Eclipse Engraving Company, we find the following :—

GET A BIG CHECK ?

Every customer of Eclipse who has bought engravings has received—or will receive in a few days—a check from Eclipse representing a discount on the volume of his business for the quarter just ended.

The only engraving department customer who will not participate is he whose total purchases did not amount to \$100. But if his orders aggregated up to \$200, his check is for 3% ; if to \$300 then 4% ; and so on up to 20% if he gave us \$3,000 or more in engraving orders during the past quarter, as was explained in detail in the October " Almanack."

How much was your check ?

Now think this thing over. If you divide your business, some to Eclipse, some elsewhere, you get " interest " on only part of it, whereas, if all your orders were given to Eclipse you would not only get a larger rebate check but a higher rate of interest on every dollar of the total.

For illustration : Your engraving bills for the quarter total, let us say, \$1,500. If we executed all your work we would

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send you a check for \$180.00 or 12%, but if you divided it half-and-half we would send you a check for \$60 or 8% on the \$750 worth of work we did for you, or 4% as figured against the total of \$1,500 for comparison with the 12% that you would get if we did it all.

This is something for not only the buyer of supplies to realise, but as well for the head of the house to reflect upon.

* * *

We wonder what our English customers would say if we raised our prices to such a pitch that every three months we could afford to "give them a big cheque" equal to 20% upon the total amount spent during the quarter.

It must be quite evident that this 20% must be charged to the customer in the price of the goods before it can be returned, consequently the small man who can only spend say less than \$100 per annum on blocks has to pay the high prices but gets nothing in return, which seems hardly fair.

We think our English system is the best in which every customer is charged alike on the lowest basis consistent with good work, without any margin for a 20% rebate if he spends a given amount with any particular firm, and we feel sure most, if not all, of our customers think similarly.

✓ *Protecting Engraver's Copy.*

THAT fruitful source of trouble between the customer and the engraver, viz., the soiling of originals, seems little nearer solution than when process was first introduced.

Our American friends find the same trouble constantly causing friction just where it is most necessary that it should

not exist, and the "American Printer" has set itself the task of trying to find a solution, but so far as the letters that have yet appeared are concerned they give no clue to an effective remedy.

We print two that have been published. Perhaps some of our English process houses will help in the matter. If so, we shall be pleased to print the correspondence.

"For quite a while we have given serious study to the problem of protecting copies in our possession. This really is a very puzzling thing, as the men have to handle them while doing rather mussy work. For specially valuable copies we use a special container to protect them, but this is impractical with all copies when a great number are handled.

"In a good many cases some of the copies, especially the larger ones, come to us considerably bent at the corners, although we are usually able to get good plates from them. Your initiative in taking up the discussion of the treatment of copy for making plates is really very timely and I hope it will be helpful to ourselves and a good many other engravers. Although we have always given this thought, your editorial has stimulated us to greater thought, and we sincerely trust there will be a solution forthcoming.

"THE BUCHER ENG. CO.,

"H. Bucher."

The soiling of copies, together with the spoilage, etc., has been an annoying feature ever since engraving has been practised. This applies to other forms of engraving as well as photo-engraving. I dare say that the photo-engraving process, due to its very nature, inflicts more punishment on copies than any other engraving method. I have seen copies practically spoiled during exposure in

photographing, as the strong arc lights would cause certain pigments to turn colour. The presence of various acids and their free use around a photo-engraving establishment, is another source of spoilage. For instance, it is absolutely necessary for the etcher or the finisher to have the copy before him, and he has to put it in a position close to himself so he can see, and under a favourable light. While no doubt some of the spoilage and disfigurement are due to carelessness, those things, however, will happen even with the greatest care. The copy has to pass through seven or eight different hands. That's where the great trouble comes in. Such things as tack-holes can usually be avoided, although not in all cases. Where large wash drawings are made upon fairly thin drawing board, there is hardly any way I know of in which they can be pasted securely to the copy board without wrinkles and perfectly flat unless pins or tacks are driven into them. A piece of drawing board that is perfectly flat will perform some wonderful contortions after an artist paints over it with wet colours. Copy that reaches the engraver fairly flat sometimes distorts violently as soon as the heat and light strike it. An agitation in “The American Printer” and in the “Photo-Engravers’ Bulletin” on this subject is bound to do a lot of good, and while this evil may not be entirely eradicated, I believe it is possible to reduce it, for you may be assured that every engraver has suffered from this cause and that all of them have given it more or less attention.

LOUIS FLADER.

Only a fool praises his own efforts. A wise man knows his limitations better than all others.

Free Sketches.

PROCESS ENGRAVERS even to-day receive application, more or less frequently, for sketches, designs, illustrated advertising ideas, etc., etc., which the customer seems to expect to be produced and submitted to him without any guarantee that he proposes to place an order for the class of work he describes, and even goes so far as to say that he does not expect to be charged for the work he entails.

More frequently travellers bring in requests that the house gets up a sketch for a certain class of work as he has a customer who is desirous of purchasing something of the kind, and he is quite confident that the enquiry is quite genuine and will materialise if only the house in question will get out something really good.

It is, of course, quite understood that a regular customer who desires something of the kind and who will undoubtedly place an order if a suitable rough idea is put before him, may require two or three of these roughs before he is quite satisfied, but the engraver in this case knows his customers and probably his likes and dislikes, and will quite willingly do all he can to please; but what we refer to is the promiscuous letter that comes to hand from a house inviting sketches, designs, etc., merely for the sake of getting a good collection from which to choose *one*, out of perhaps ten to twenty submitted.

It is to be hoped that process engravers by now have learned to treat this class of communication in the way it should be treated, for there can be no reason why any house should have sketches produced for them *ad lib.* and quite free.

The following “talk” by a sales’ manager hits off the position exactly, so we

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take leave to reprint it. He was addressing his travellers, in the course of which he says :

" Why, I once had a salesman who wrote out instructions for a sketch every other day. We had made about fifteen designs for him when he was suddenly taken sick and had to go to the hospital for an operation. About the second week he was there, I obtained, from the art-room, a list of all the people he had submitted stuff to, and, thinking that at least half of them had been laying on our sketches long enough to hatch out an order, I went around to see them. I found, with only a few exceptions, that our valuable sketches had either been thrown into some corner or hidden away under a heap of old papers on a man's desk. Inquiries elicited the information that not one of these people was in the market or had any idea of buying a display. They had been coaxed, by our salesman, into giving their consent to having a sketch made up. Under these circumstances, is it any wonder that our stuff had been thrown on one side to make room for more timely matters? 'The value of this art work cannot be very high,' these people naturally concluded, 'or else a salesman would hardly spend an hour or so forcing a sketch on us absolutely free of charge.'

" About a month later, when that salesman came out of the hospital, I called him into my office and made him this proposition : We would continue to draw up as many sketches as he wanted. For every one we made, however, I would deduct five dollars from his salary—merely as a deposit. If he sold the sketch, we would return his five plus another five for interest. If, on the other hand, the sketch was lost, he would also lose his five dollars. Six weeks went by without

that fellow even mentioning the word 'sketch,' and then I fired him. He wasn't a salesman at all. He was a philanthropist—but his only failing was that he didn't care whose money he used in his philanthropic work, provided it wasn't his own.

" Another instance : I remember calling, a few years ago, on the advertising man of a large brewery out West. This concern got out a calendar each year, placing the order with the house who submitted the best sketch. My man was about to award the contract for the current year's calendar when I called, and, this matter of 'sketches without obligation' coming up, he said he would show me the extent of the practice. He took me into a fair-sized room that he called 'the studio.' In that room, arranged as are the paintings in an art gallery, hung beautifully coloured originals, in oils, pastels and water colours. 'I estimate the paintings in here to be worth over four thousand dollars,' this advertising man told me, 'and yet they haven't cost us anything. All I do is announce that I am in the market for a calendar and immediately, from all parts of the country, designs come pouring in. Of course,' he added, 'I send these paintings back when the order is finally placed, but see the selection I get, absolutely free of charge.'"

" The advertising agencies and professional artists get paid for all preliminary work through having made it a practice, from the start, to demand payment for every stroke they did, and it behoves every salesman who is worthy of the name and who prides himself on wanting to save, as well as make as much for his house as possible, to appoint himself a committee of one and pass on the intentions of each customer before putting in his request for a sketch."

How can the Process Engraver increase the Effectiveness of Commercial Literature?

WHAT do we mean by Commercial Literature? For our purpose it must be taken to include everything that helps to convey the desired message from the producer to the consumer; the type matter, the effectiveness of style, and of course the illustrations—in short, the manner in which the message is dressed to go forth to accomplish its part in the advertising campaign.

Why is it that so much of the sales promotion matter of the day is below par, as we think practically everyone in the trade will admit is the case? Is it not because there does not exist a close enough unity of thought and action between the average advertising man, the artist, designer, engraver, paper maker and printer? Could these be brought together so that each might be the complement of the other, we think that the improvement would be so apparent that no one would desire to return to the present condition.

It may be urged that no one man can be an expert in every branch of business that enters into the making of a piece of advertising literature, which is no doubt strictly true; and it is just here where we think the engraver may find his opportunity, for he has the nucleus of an organisation that may help him, if rightly used, to develop another and very remunerative side of his business.

To carry out this idea it would be necessary for the engraver to link himself up on the one side with a progressive advertising agent, and on the other with a printer of resource and quality, so

making a trio, whose interests were mutual, each supplying the others' lack, and together forming a powerful medium for the production of the most effective and valuable pieces of work for the purpose intended.

Of course, together with this must go an educational campaign that will show the advertiser that he is getting exceptional service, service that demands and receives adequate remuneration; and as the outcome of this service is greater efficiency and greater return, so the initial cost must be greater, and as advertisers are clamouring for the most effective work possible there seems to be an opening such as we suggest.

Whether the times are propitious for such an advance may be open to question, but the war will not last for ever, and in view of its early conclusion, there will be a great influx of talent into the trade such as will meet the needs that arise.

We believe that the business man of the future will have a keener appreciation for quality, rather than price. The lessons that have been thrust upon the commercial world together with the laudable desire to extend business in every direction possible, and stimulated by the knowledge that competitors are making strenuous efforts to convey to probable customers information respecting their products in the most effective manner possible, will lead him to appreciate every effort intended to make his announcements stand out superior to others, price then being a minor consideration.

✓ *The Making of Copies to Exact Size.*

By L. G. Rose.

IN these days of the many uses of photography the photographer, especially the one doing commercial work, is often called upon to make copies to exact size — not approximately, but exact. Architects and topographers are those who make the most frequent demand for such work, although it is very useful in making copies of handwriting and any legal work where a great deal depends upon accuracy. It may also be used in making copies of long tracings or prints of any sort where sections have to be matched correctly.

By laying off four points on the copy equally distant from each other, and bringing those points to points equally distant on the ground-glass, the exact size desired may be obtained. If a double enlargement is desired, the copy is laid off with the lines, for instance, 12 inches apart, and the lines on the ground-glass are made 24 inches apart, the 12-inch lines then being brought to the 24-inch lines on the ground-glass. A one-half reduction is just the reverse, etc.

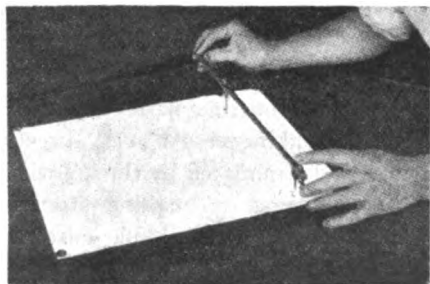


Fig. 1.

The method of proceeding is as follows :

The first requisite is a beam compass of reliable make—one that is shaky or loose

in any way being worse than useless. Take a copy (for instance, a map), and lay off a convenient distance thereon, say, A—B. (see Fig. 1). This distance should be such that in erasing the pencil marks from the copy when the work is completed none of the copy itself will be injured. The compass is then set tight for such distance and the point A—C is put in, being careful to get it fairly square with A—B. With one point of the compass at line B, describe an arc going through point D, after which, with the point of the compass at line C, describe an arc going through point D. This will give the fourth point D accurately.

For copying to exact size the above procedure is repeated on the ground-glass ; that is, bring the image of the laid-off points to the compass distance.

The pencil used in laying off the points should be very hard and have a fine point, and all work should be very carefully done, as success depends upon accuracy in laying off for copy.

The camera and copy-board for this work will have to be exactly parallel. There are several methods of getting the camera and board parallel, probably the most common one being by the use of a small pocket compass enclosed in a case having one straight side. This straight side is placed in contact with the copy-board, and after noting the position of the needle, the compass is placed in contact with the ground-glass and the ground-glass brought to such a position that the needle of the compass is in the same position as when in contact with the copy-board.

For a vertical test a common carpenter's plumb-bob will be all that is necessary.

In measuring the points on the ground-glass it will be a little difficult at first, as the points on the beam compass slide all around on the glass, but with a little practice it will become comparatively easy. (See Fig 2.)

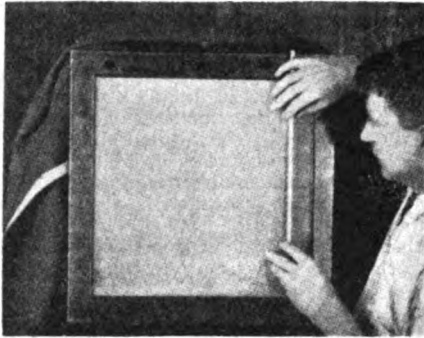


Fig. 2.

Also, considerable difficulty may be experienced at first in getting the image on the ground-glass the same size all around as the copy, but as every photographer is more or less familiar with the working of his lens it is not deemed necessary to touch on that point herein.

In putting the plate in the holder, care should be taken that it is in there in the right position, also that the holder is in proper contact with the camera, as all these things count when one is working to a hundredth of an inch or so.

After the plate has been exposed and developed it may be again measured. While taking this measurement the operator should avoid puncturing the film on the plate.

After the first plate is made, of course, it is not necessary to measure those succeeding where they are to be copies to the same size, although they should be

checked up frequently, as temperature and humidity have considerable effect on apparatus.

In making prints from the negatives the prints cannot be dried on frames or drying apparatus of any kind, as they would retain the stretch which all prints undergo in developing and washing, and this stretch is considerable. The proper method of drying the prints is to hang them on a line separately and allow them to become bone dry, when they will return to their proper size. In mounting such prints, the only way open is to dry-mount them, using mounting tissue.—

Photographic Journal.

THERE is a well-known law of Equal Reaction (for every force or action there is a similar reaction). This law underlies every science, including industrial activities. It is easy to see that the law applies to the printing business—that for every act, word or thought, there is a reaction upon the person, organisation, state or nation from which it goes forth, and that this reaction is equal to, and of the same character, as the act itself; that we can help ourselves only as we help others; that selling is a reaction from buying; that profit is a reaction from service, and that the success and safety of each person or organisation comes only by extending greater security and opportunity to other persons or organisations.

If this is true, then ignorant competition between competitors, or between the buyer and seller, means unnecessary waste, and improved industrial conditions can be brought about only through some co-operative plan whereby the one gives up to the other.

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NATIONAL WAR SAVINGS.

A STRENUOUS effort of business men to promote the sale of National War Bonds and War Savings Certificates is to be made during the first week in March.

Employers of labour are asked to adopt an instalment plan (if they have not already done so) for the purchase of War Savings Certificates which has been found to be so eminently successful.

The Hon. Organiser asks every employer to arrange a meeting of his workpeople on Wednesday, March 6th, at 12 noon (11.45 where luncheon hour is fixed at noon).

The urgency of the matter in relation to victory should be explained to the workpeople and typewritten slips prepared beforehand should be handed round showing:—

1. The instalments which the employer is willing to accept.
2. Space for the amount of War Savings Certificates desired by the employee.
3. Space for signature of employee.

If, therefore, the employees' investment in War Savings Certificates, added to the employer's own in National War Bonds, are registered on Thursday, March 7th, the enemy will learn the cause of the strange silence of our industries between 12 and 12.30 on the previous day.

If you are able to co-operate in this scheme, kindly let me know so that I may forward your acquiescence to the National War Savings Committee.

Further particulars may be obtained from Mr. Wareham Smith, The National War Savings Committee, Salisbury Square, London, E.C. 4.

IMPRESSIONS, the house organ of Messrs. Patterson & White, of Philadelphia, is a very effective production. Not that it is voluminous or imposing, but it is just what will appeal to the average buyer. It is compact, chaste, well thought out and well produced, and in every way suited to its purpose; the contents give just the kind of information a customer is usually seeking. We heartily commend the production as a most valuable piece of sales promotion.

THE PENROSE POCKET BOOK AND DIARY FOR 1918 is in the usual handy form, and besides the diary and memoranda pages, contains a vast fund of information of a valuable character for all engaged in the process engraving and kindred trades. There are notes and formulae on almost every branch of the art of illustration, including photo-lithography, photo-gravure and collotype, and the various tables will be found of great service, as will also the British weights and measures with their metrical equivalents. The book is compiled by Mr.

William Gamble, F.R.P.S., and published by Messrs. Penrose & Co., Ltd., 109 Farringdon-road, E.C. 1.

ROYLE ROUTERS is the title of a very well-produced folder, issued by John Royle & Sons, to advertise their routers and cutters. It is attractively produced and contains a long list of the firm's satisfied customers, together with a full description of the various cutters produced by them.

Messrs. Royle will be pleased to send a copy to any engraving firm upon application to them at Patterson, New Jersey, U.S.A.

THE NORTHERN, the monthly booklet issued by the Northern Engraving Company, of Canton, is as usual full of good things. The Editor seems to find something fresh and something good to say in every issue.

The company push direct mail advertising by others, and show by example that they believe in their own suggestion. We are often thankful to them for hints we get from their issues, and hope there are plenty more to come.

THE CHALLENGE PLATE MONTHLY EQUIPMENT, a booklet issued by the Challenge Machinery Co., shows this firm's system of making up beds, for illustration or electros, that are in every way superior to the ordinary wood bases so universally used.

If printers could be induced to adopt these bases for their printing plates, it would put an end to a great deal of the time now wasted in make ready. Perhaps it is too much to expect that the printer will be prepared to meet the initial outlay which is fairly large. Yet should he do so he should reap a rich reward in satisfied customers, and in the saving of time in his machine room. We think the latter would soon repay the outlay.

THE MANTERNACH COMPANY, which, by the way, is one of those complete plants so dear to the heart of some of our American friends, send us some specimens of their sales promotion letters, also some specimens of their half-tone and line work which are known as "Manterline" half-tones, etc. The process work is very good indeed, and prints well on rough paper, which is the speciality they claim for it.

Their sales promotion letters are full of push and go, but whether they would appeal to an English public is very much open to doubt. The Company, however, evidently know their public, and that is the most important thing to them, and as their letters, service and advertising bring them all the work they can produce they are evidently successful.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

Reconstruction on "Whitley" Lines.

THE Guildhall Meeting to inaugurate the work of the Industrial Reconstruction Council was certainly a great success, if success is to be judged by the number and quality of those of whom it was composed.

By the time announced for the opening of the meeting, practically every seat in the Guildhall was occupied, and when it is remembered that these seats had been allotted to those only who were deeply interested in the question, it will be at once realised that a very great deal of interest has been aroused by the subject under consideration.

It is a matter of notoriety that questions surrounded by a great deal of uncertainty have a fascination for a certain class of individual, but in the present case it was evident that those present did not belong to that particular class; they were all earnest, busy business men, drawn together by a feeling that the near future held possibilities of great good, or great evil, and as wise men they wished to learn at first hand what were the likely problems they would be called upon to face and if possible get some hint as to the best way to meet those problems.

It may be asked: What is the Industrial Reconstruction Council? Mr. E. J. Benn, the Chairman, says: "It is a body of enthusiasts banded together to push one

idea which would help them to understand better some of the industrial problems which lie before the nation."

"That its mission was to preach the doctrine of self-government for industry, the complete organisation of every trade—every man in his Union, every employer in his Association—and from these two centres to form elected trade parliaments for each industry, vested with adequate powers, and so provide the machinery by which peace and prosperity may be secured in the future," thus giving effect to the recommendations of the Whitley Report, this being the inaugural meeting—the first of a series to be held in the various centres of industry throughout the country.

The root idea of the scheme is that each industry is a unit, not merely a collection of individual firms, competing against each other. It is something bigger and finer than the mere sum of units that compose it. Therefore the Industrial Reconstruction Council have formed themselves into a propagandist body, having as its object the awakening of industrial interest to the need for a complete system of industrial self-government.

The importance of the occasion may be gathered from the fact that the meeting was opened by the Lord Mayor, and afterwards presided over by Lord Burnham,

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and was addressed by Dr. Addison, the Minister of Reconstruction, Mr. H. G. Roberts, the Minister of Labour, Mr. J. H. Whitley, the Chairman of the Committee whose report bears his name, and Mr. E. Bevin, of the Dockers' Union. Thus were men representing various phases of thought brought together to lay their view before the meeting, and by the time it had come to a close everyone had a fairly clear view of the tremendous importance of the subject, as well as of the enormity of the gap that has to be bridged so as to bring order out of what might so easily prove to be chaos.

Dr. Addison, in a very quiet yet forceful manner, put the subject clearly before his hearers. He reminded them that the men returning from the war would be changed from what they were before they went out. They would come back conscious that they had rights as well as national obligations, which they had done their best to discharge. Consequently, unless we can so dispose our national affairs that all men, both employees and employers, can freely co-operate and work hand in hand as they have never done before, in an effort at increased wealth production, of which the worker must have a larger share than hitherto, distress and trouble must be our lot—consequently the governing consideration in all reconstruction efforts must be the increased production of wealth.

The war has taught us something we should never forget, viz., that there was latent in our people a great capacity for increased production, once there was unity of spirit and the determination to produce. Further, no organisation could promote the well-being of an industry by organising industrial civil war. They could not promote the well-being of an

industry by manipulating prices that kept their customers poor. They could not promote the well-being of industry by bolstering up inefficiency in any form, and they could not help men who would not help themselves. Three things, he ventured to think, they ought not to try and do. They ought not to try and regulate the pace by that of the slowest. They ought not to provide any sort of encouragement to any sort of inefficiency anywhere; and, finally, they should not do anything which would fetter any man's freedom to make the best use he could of his own brains, skill, and enterprise. They could and ought to do a great many things. There ought to be no limitation of output, and our standard of unemployment should be revised. It was not for the good of an industry that there should be a standing margin of unemployed. (Cheers). He would like to see the industries so organise themselves that they would be prepared to shoulder their full share of responsibility.

One further point made by Dr. Addison was his advice to the various trades to get on with the work at once: now was the important moment, not when the war was over. The Government intended the work to be done, and preferred each trade to get started and do its own work in its own way, but do it—for if each trade for itself did not move in the matter, then the Government would step in and do it for them. But that was not their wish, and they would only so act when the leaders in any trade neglected the opportunity presented them.

Mr. G. H. Roberts (Minister of Labour) reminded the meeting how highly important it was that there should be industrial peace, when military peace was established. We could not revert to the conditions that

prevailed before the war. There had been great awakening among all classes of the community. There had been great revelations in the trenches and on the seas, so that we must accept it as a fact that we had to provide means by which conditions were created, worthy of the splendid manhood which had been displayed in the war. It would be no longer possible for employers to say, I am going to run my business in my own way. In future both parties must have equal responsibility as far as conditions of employment are concerned. If he was asked what the average man required in life he would sum it up in the words "Sufficiency and Security." Employers must get rid of their objection to higher wages. He wanted to see every workman assured of a wage that would provide him with all the decencies of life. There ought to be no limit placed upon the earning capacity of the individual. An employer had no right to take labour without adequate compensation. On the other hand, if a workman got the best wages he ought to give the best possible return for those wages.

Mr. Ernest Bevin made a vehement attack upon employers in general, but said if there was on the part of the employers a desire to construct machinery for the reconstruction period, Labour would be willing to meet them, but it must be free to tackle the whole problem of industry. If Labour is to be asked to take responsibility during the reconstruction period to help the nation, then they must be prepared to give it equal responsibility in the management of the whole industry.

To sum up the message of the meeting it may be put in the words of a thoroughly interested hearer :—

1. To me the speeches suggested action, and that at once.

2. Organise yourselves or be organised. We do not want to compel you to organise, but if you do not do it for yourselves, it will have to be done for you.

3. The country needs and must have efficiency from top to bottom.

4. The minor irritating troubles of today that exist with labour are merely effect, to eliminate which we must remove the cause, viz., suspicion and mistrust on both sides.

Making a Focussing Screen.

WHEN a focussing screen gets broken, it is not always easy to find a piece of glass which has a fine enough grain to replace it. The simplest way out of the difficulty is to grind the glass yourself. This can easily be done by taking two spoiled negatives of the right size, cleaning off the films and grinding the surfaces with fine emery powder, the kind sold as knife-powder being the most suitable. One of the pieces of glass is fastened to a flat board with tacks or brads; the heads of the fasteners must, of course, be kept below the surface of the glass. A little powder is dusted over the glass and sprinkled with water, and the other piece of glass placed on top of it. The two surfaces are then ground together with a constant, varying motion. By spreading out the fingers the pressure can be equalised over the whole surface. As both surfaces are in contact with the powder, two glasses are ground at the same time. A couple of half-plates can be finished in this way in less than a quarter of an hour. *Professional Photographer.*

A New Process Glue.

THE scarcity and at times absolute cessation of supplies of American fish glue has directed the attention of the trade to this efficient British made substitute, and those who have mastered its use speak well of it. Evidently this glue requires to be treated differently from the American variety, and we have, therefore, asked a practical man to prepare some instructions, which we print below.

SENSITIVE SOLUTION.

4 ozs.....Glue.

10 ozs.....Water.

$\frac{1}{2}$ oz. Bichromate of Ammonium.

10 drops ...Ammonia .880.

Make this up at night and filter in the morning.

CLEANING.

The plate must be well rubbed the way of the polish, if "straight" with fine pumice powder.

PASSING BATH.

1 dram Chromic Acid.

$\frac{1}{4}$ dram Sulphuric Acid.

20 ozs.....Water.

The plate is placed in the above bath for two minutes, rocking it or brushing it with a mop brush, then washed under the tap and rubbed with a piece of clean rag to remove all deposit. If the deposit is left on the plate the glue will not stick to the surface.

COATING.

Place the plate on the whirler, run water over the face to free it from dust, and lightly whirl the water off. If the film of water does not stick to the plate the latter is *not clean*; if the film of water *does* adhere to the plate pour a pool of filtered glue on to the middle of the plate; let it flow to top right-hand corner, then to the left top, then to left bottom, and finally to

right bottom corner. Turn the whirler over and whirl at a moderate speed. The proper speed will give an even coating; too fast will produce streaks, too slow the corners will be thicker than the centre. Repeat the operation for a double coat.

DRYING.

Dry over a stove or hot plate; if a stove the gas must be turned very low and the plate must not get hot. If too hot the print will not develop; if not quite dry the plate will stick to the negative. The coating when dry should show a flat, shiny surface, and must be free from dust.

PRINTING.

Dust the negative and the plate with a flat brush. A thinly-coated plate will print in three minutes 1 foot away from an enclosed arc lamp. The twice-coated plate will take from 5 to 7 minutes to print under same conditions.

The time for printing depends upon the thickness of the coating and the distance of the lamp from the negative.

DEVELOPING.

Place the plate in a dish of cold water and allow the water to flow over it; if the negative is good and all the instructions have been carried out properly the plate will develop at once; the plate is then placed in a filtered dye solution to stain the glue, then washed under the tap until the image shows up clearly upon the copper or zinc. If the coating does not stick on—

1. The plate is not properly cleaned.
 2. The coating is too thick.
 3. The image is not printed long enough.
- Nos. 1 and 2 are the usual causes of failure.

BURNING-IN.

Burn in over a gas stove. The thinly-coated plate will burn in to a dark golden colour; the thicker the coat the darker the colour up to nearly black.

EMPLOYING PROCESS ENGRAVERS AT THE WAR

LIEUT. H. N. HUNTER. SECOND-LIEUT. J. A. HUGHES.

NOT many process engraving houses can boast of having three of their most active and essential directors engaged in the war, yet that is the proud position occupied by the André Sleigh & Anglo, Ltd., organisation, whose directors have in a quiet and unostentatious manner done much good work for army purposes, in addition to providing a complete process plant for use in the field.

In a recent issue we gave a portrait of Captain Noel Hunter, who has charge of an important process plant, etc., actually in the sphere of operations. We now print the portraits of two other directors, Lieutenant Hugh N. Hunter and Second-

Lieut. J. A. Hughes, both of whom were most actively employed in the service of the company prior to the commencement of the war.

Of the three officers referred to, one is engaged in the naval service, the other two with the sister service, all in active work where the position is always arduous and often dangerous, yet they are per-

fectly happy in thus serving their country, for as Lieutenant Hunter said to his brother but a few weeks ago: "It is remarkable how easily one can get used to quite a different kind of life from that one has been used to for so long a time."

Lieutenant Hugh N. Hunter, like his brother, whose portrait we gave in our January issue, joined the service soon after the outbreak of the war, so that early in 1915 we find him in the Royal Naval Volunteer Reserve, where he has done excellent work ever since.

It is not permissible for us to recount any of his exploits when he is out "hunting." Suffice it to say that the excitement of the chase

brings with it at times a sense of exhilaration and fascination that will provide matter for many a story in days when the war has become a memory, and time has healed some of the wounds that ache so much to-day.

Lieutenant H. N. Hunter is devoted to his business, and looks forward longingly to the time when he will be back once more



LIEUT. H. N. HUNTER.

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at Milford Lane, for he is one of those, perhaps the minority, who believes the war will not last longer than another six or eight months. May his confidence prove to be well founded.

Second-Lieutenant J. A. Hughes, who enjoys the distinction of being the Technical Director to his company, joined the army little more than a year ago, but soon found himself in France giving the benefit of his long technical experience to those departments of army work where they were found to be most useful.

When the authorities asked Captain G. Noel Hunter to go to Italy to take up there work on the lines of that he had been doing in France, Lieutenant J. A. Hughes was called upon to fill the vacant position, and has had the pleasant experience of finding the army authorities greatly valuing his technical abilities, which they have found most useful to them in the various classes of work they are compelled to undertake so as to serve a modern army efficiently. In fact so great is their appreciation of his ability that we understand it is intended to ask him to transfer his labours to the head depot where most of the reproduction processes, printing, etc., will in future be produced in one large works.

Lieutenant Hughes has been a director of the company since its formation, now about twenty years ago, and the company rely upon him for technical advice in the large number of processes employed by them. During the last seven years he has made a special study of rotary photo-gravure, which is destined to play so important a part in the illustrative work of the future, and upon which his house has spent so much money in the determination to excel in that branch of the

graphic arts, as they have already done in so many other branches. The trade may now look upon Lieut. J. A. Hughes as an authority upon this subject, and without doubt we shall hear more about him in the near future should he be spared, as we hope he will be, to return to his home and to take up the work he laid aside at his country's call.



SECOND-LIEUT. J. A. HUGHES.

JUST because a certain piece of advertising didn't bring results it isn't fair or right to become disgusted and quit cold. Instead, investigate the cause. You wouldn't throw away your watch because it didn't tell the correct time. You'd get it fixed.

WEAK men wait for opportunities ; strong men make them.—MARDEN.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C.

Vice-President—

MR. F. H. VAUS,
Messrs. Vaus & Crampton, Ltd.,
Kirby Street, London, E.C.

Treasurer—

MR. EDWARD W. HUNTER,
André Sleigh & Anglo Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C.

Telephone: 5596 Bank.

Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an Open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

THE work of the Council during the past month has been as varied as ever; especially has this been the case in consequence of the approach of the Annual Meeting.

In addition to the regular weekly meetings of the Council there have been not a few committee meetings for various purposes, all necessary to maintain the efficiency of the work of the Federation.

During the month the members of the Council have felt themselves called upon to express their very deep sympathy with some of their colleagues. Mr. D. Greenhill had to undergo a serious operation that kept him from the Council meetings for several weeks; following this came the sad accident at the André Sleigh & Anglo place of business; following this our worthy Secretary suffered a great loss by the death of his partner in business after a few days' illness. In each case the members of the Council felt it their duty to send a message expressing their deepest sympathy in the suffering and loss that had befallen their colleagues.

The question of H.M. Stationery Office contract has been further considered, and steps taken which it is believed will put the matter upon a sounder basis for the future, the feeling of the Council being that it was quite impossible to put that institution in a more favourable position so far as supplies are concerned, than any other large buyer.

The Annual Meeting was fixed for Tuesday, March 26th, and to be held at

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Anderton Hotel, the same place as last year, the business meeting to commence at 12 o'clock, and the general meeting at 2 o'clock, immediately following a Lunch which will be provided by the Federation, one invitation ticket being sent to each house in the Federation.

A Sub-Committee was appointed to prepare all matters for the meeting, and are making efforts to secure someone in official capacity to give an address upon the reconstruction problem, with special reference to the Whitley Report.

The question of the position of the members of the Platen Printers Machine Minders employed in process houses having been called in question, the Council decided to enter into correspondence with the officials of that Society and make an endeavour to get matters regularised so that it may be possible for a uniform system of treatment throughout the trade to be adopted.

The matter re returned disabled soldiers' admittance into the trade having to pass through the hands of the Printers' Panel, was discussed, and as it was felt that the subject could be dealt with far more promptly and far more satisfactorily if a Process Engravers' Panel was formed, it was resolved to enter into communication with the Ministry of Pensions and endeavour to get the process engraving removed from the printers' section, and a separate panel formed to deal with the trade only.

The President gave a report of the important meeting at the Guildhall, to which members of the Council had been invited to take part in the launching of the work of the Industrial Reconstruction Council, an account of which meeting will be found on another page, this report gave rise to a lively discussion as to the

present position of the process trade, it being felt in some quarters that the conditions in this trade as brought about by the existing agreements are so particularly good that no further organisation is needful to help maintain those conditions. On the other hand there was expressed a feeling that though existing conditions were admittedly of a very cordial and friendly character, yet nothing should be omitted to be done that would still further safeguard the smooth working as between employer and employee. The Council is therefore considering whether it is worth while to recommend a more liberal adoption of the scheme as outlined in the Whitley Report.

One of the most interesting meetings of the Council was that at which Mr. Arthur Cox—who has done such yeoman service in an effort to get process engravers throughout the county to interest themselves in the question of costing, and who has perfected a system which was printed, and is at the disposal of every member of the Federation, by which they can in the simplest and yet most effective manner discover what are their average costs of production—discussed a further problem which has developed out of his continued study of the questions of costing so far as labour, material, etc., etc., are concerned, and as he believes he has discovered a foundation upon which a superstructure can be raised, by which Labour troubles can be greatly minimised if not practically abolished, and by which he believes it is made possible for Capital and Labour to work together in the most harmonious manner. He felt it a duty laid upon him to place the matter before the Council so that it might have the opportunity of quietly and thoughtfully considering it in all its bearings with a

view to seeing how far it might be applicable to the process engraving trade.

It may be mentioned in passing that the outlines of the idea have been put before experts in such matters who speak well of the scheme, and its practicability has been tested in a manufacturing business with a very marked beneficial result, not only in increased output but also upon the workers themselves, who have realised that in this scheme they have opportunities and benefits hitherto unattained by them, the result being greater contentment and greater enthusiasm in the work, together with friendly rivalry toward perfection.

The Council gave considerable time to the consideration of the scheme, feeling that while such an idea might be applicable to certain trades it had to be tested and examined in every particular to see how far, if at all, it was applicable to process, but after a very exhaustive discussion it was felt that there was much of educative value in the idea, that at any rate it was most advisable to ask Mr. Cox to develop the matter further so as to enable the Council to come to a definite conclusion as to the practicability of asking the trade for the information required.

Among the correspondence was the usual number of interesting and sometimes puzzling questions. How is it that in an industry so compact as process there can be so many puzzles propounded? Of course some of the questions need not be asked at all if the writers had but consulted their price schedule first.

A question was raised by one correspondent as to whether he could employ and train disabled soldiers if he had at present the full number of apprentices. The answer to which was that as it had been decided that such soldiers should rank as

apprentices he could not exceed his regulation number.

A somewhat amusing letter was received from a correspondent who it appears was in arrear with his payments to his block makers and yet claimed the full cash discount, which his block maker seemingly declined to allow. This correspondent wanted the Council to order the block maker, who is a member of the Federation, to allow the discount, a course of action which the Council politely but firmly declined to take.

A decision was sought from the Council as to what should be done in the case of employees so far as pay, etc., is concerned, when they are asked to work through their meal times. It was, however, felt that in such cases, as the employee was discommoding himself to oblige his employer, the employer should treat the matter in a generous spirit, especially if he wished to get the best results from his employee.

The National War Savings Committee sought the assistance of the Federation in making the Great Tank Week as great a success as possible; in response a letter on the subject was sent to every London member. It was, however, felt that so much had been done in every locality to press the scheme upon the attention of employers throughout the country that a further great result could hardly be expected from the trade as practically every house had already taken steps of one kind or another toward the object sought to be attained.

Another interesting question put to the Council was as to the definitions process engravers were to attach to the term manual labour, for the purposes of the National Insurance Scheme, and it was remarkable how much variety there seems

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to be in dealing with this question in the different process establishments.

The Council is having the question carefully examined, and the trade may expect to hear more of the matter in due course.

In another case a ruling was sought as to the method of charging when two or more blocks are ordered to be produced together, so as to avoid the minimum charge for each.

It would appear that some customers object to pay for the white space between such blocks, claiming to pay merely for the actual space covered by the work. The decision of the Council will, we think, be found to be in conformity with the general practice, viz., that the white space between the subjects must be measured in the overall measurements of the blocks, and that the customer must therefore pay for such space.

In a number of cases the Council has sought the help of local process engravers in clearing up questions that have arisen with other houses in the same neighbourhood, and the method has proved eminently successful.

Should any member of the Federation receive a letter from the Secretary at any time, asking his good offices in settling up any query that may have arisen in that locality, the Council will heartily appreciate any effort made to assist in the smoothing out of any such query or difficulty. It is not by any means uncommon for a neighbour to have more influence, through possession of local knowledge, than can be possible for headquarters to possess.

He who hurts others injures himself ;
he who helps others advances his own
interests.—BUDDHA.

A Modern Wet Plate Formula.

By W. T. Wilkinson.

THE wet collodion process as generally used by photo-engravers to-day, differs very little from that introduced by Scott Archer in the early fifties of last century, and up to 1880 it was the only means usable for producing photographic negatives from nature (portrait or landscape).

After Scott Archer, Hardwick spent much time and skill in determining the best formula for compounding the iodised collodion so that the utmost gradations of tone values would be produced in the negative, with the necessary vigour to ensure due registration in the positive print. Experience and research settled the collodion formula at :

Pyrocyline	8 grains
Sodide	4 grams
Bromide	1 grain
Alcohol	$\frac{1}{2}$ oz.
Ether	$\frac{1}{2}$ oz.

The glass plate coated with such a collodion was sensitised in a solution of silver nitrate (40 grains) to each ounce of water, and after exposure in the camera the latent image was developed by means of a solution of protosulphate of iron, 20.25 grains, acetic acid, 15-20 minims to each ounce of water.

These formulae represent almost the final absolute standard for producing the highest grade of continuous tone negatives, and when photo-engraving was first born so many new and perplexing problems had to be solved, optical and mechanical, that precluded much worry as to any possible improvement in the old wet plate

method of working which seemed to be consecrated by a photographic lifetime or efficiency, and so we let it go at that.

But an experience recorded in these pages last year gave real cause to doubt that the old-established formula was really the best possible for making negatives suitable for photo-engraving, and further experiments prove that the following modification will give far better results and also be more economical.

Take one pint of either Mawson's, Penrose's, or Johnson's collodion (iodised as directed by each maker). To this add 10 ounces of methyl ether and 10 ounces of industrial spirit, or one pint of thinning solution as sold by each maker for the purpose of thinning collodion, which has thickened somewhat from the operators' boyish habit of losing the cork or stopper out of the collodion pourer. After the above addition shake up well, then let it stand overnight to settle. The film will be a little more tender perhaps, but that is of no moment practically. The silver bath need not be over 25 grams per ounce of water. This will give a good working strength, but will not feed the dark room floor so generously as does the stronger 30 to 40 grain solution.

For the developer make up a stock solution of commercial sulphate of iron (green copperas). This gives far better results than the nicer looking crystals of proto-sulphate of iron.

To make this stock solution, dissolve 3lbs. of commercial sulphate of iron in 80 ozs. of hot water. When cold add 5ozs. liquor ammonia. Stir well, then allow to settle. This solution keeps well and improves with age.

Acetic acid being scarce, we now require another stock solution, first introduced in the seventies of last century by

M. Carey Lea, and which is both cheaper and *better* than acetic acid, especially in the directions of giving clear lines, and more density, both of which advantages in process work were against its use for continuous tone negatives. M. Carey Lea called the preparation collocine.

To make this collocine, carefully add one ounce of sulphuric acid to ten ounces of water, then soak one ounce of gelatine in water till it is quite soft, squeeze as much of the water out of the gelatine as possible, then dissolve in the mixture of water and sulphuric acid. Next put in a few nails or scraps of zinc, and let this act for twenty-four hours or so, stirring up at intervals. Finally dilute to twenty ounces and add 30 grains of soda acetate and label collocine.

Now we are ready to make up our developer, which is done in a few seconds and without having to hunt up the weights, probably lately used as lethal projectiles.

Take of
 Stock solution of sulphate of iron 6 oz.
 Stock solution of collocine..... 1 oz.
 Water 80 oz.

This developer acts a little slower than the ordinary developer (but is not unduly slow), and gives a richer image.

Fix (or clear) in a solution of hyposulphate of soda 16 ounces to a quart of water. Keep in a dish outside the dark room.

Negatives made by this formula require very little clearing, because the film is so thin that surface fog has no tendency to form like it does with a thick film.

Mr. Smith's clearing solution is the best made up as follows :

A.

Water 25 ozs.
 Copper sulphate 1 oz.
 Sodium chloride 1 oz.

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Ordinary table salt answers well in my hands. When dissolved add sufficient liquor ammonia (.880) till the solution is quite clear, and a rich ultramarine colour.

B.

Hyposulphite of soda.....5 ozs.

Water 25 ozs.

This should be made specially for this purpose, not dipped out of the fixing bath.

For use as a clearer or reducer take equal parts of A and B.

To intensify, use the ordinary lead and ferricyanide formula, followed by sodium and ammonia sulphide. The thinner collodion film scores again here, as with it no acetic acid is necessary in the lead solution.

Conserving the Salesman's time.

HERE is the argument for the use of direct-by-mail advertising matter as advanced by Rous & Mann, Ltd., of Toronto, Canada :

" A salesman can sell only when he can get directly in touch with the buyer. Taking into account the time he doesn't see the buyer because he is out, or busy, and the time used in riding, driving, or walking to and from the buyer's place of business, and a salesman's opportunities of doing business are reduced to less than three hours each day.

" What can a salesman do in that short time ? Much, if he can be actually selling. Little or nothing, if he has to use his time explaining his various lines, their quality, and the service his firm will give.

" A certain successful manufacturer who sent each month, to every firm he wanted to sell, some real selling arguments about some particular line of his goods, was asked

by a friend if it paid in actual sales. He replied : ' I can't say that I get mail orders for enough goods to total the expenditure, but I know this, that my salesmen don't have to explain who they are what the firm makes, or what the goods are they want to sell—that work is done. They spend their time selling, and I know it pays.' "

The Boss is not Always Asleep.

WELL. Jim, how's the new job going ? "

" Fine ! It's a perfect cinch, too. I don't have to do half so much as I thought I would, either. Nobody keeps any track of the time I go out to lunch, and for that matter nobody seems to know what I'm doing. Easiest thing you know, old man ! "

Jim, you see, is getting ready for the axe. Verily, he is laying his head upon the block, and getting ready for a long period of rest.

Some day the boss is going to tell him what he thinks of the way he is doing his work—for the boss knows, or he wouldn't be boss—and then Jim is going to say, with an expression of injured innocence on his face :

" Nobody told me anything about that. Nobody has warned me of this. How was I to know ? "

And the boss is going to reply, more in sorrow than in anger, " I don't want people around here who have to be watched. If your interest in the business is not great enough to make you work, you're not the man we need. I want people, who have ideals for themselves higher than I have for them. Good-bye ! "

✓*Half-tone Depths.*

By N. S. Amstutz, *Research Engineer, Valparaiso, Ind.*

AT present no one any longer questions the practicability of half-tones from a printing standpoint. In the early days it was a problem to secure printing depths and a greater one to secure the necessary co-operation of printers to actually prove the plates. Some of the early literature referred to depths in terms of thickness of Bristol board and other vague units. It has also been proposed to let the "catchiness" of the etched out portions for holding chalk be an index of depth. Even though the necessity for actually knowing the depths of half-tones has been questioned by many who look at the thing superficially, nevertheless the almost universal quality one hears mentioned among producers and users of plates, next to tone value, is DEPTH. This, then, is its own index of importance.

Depth, considered alone, without reference to tone value, is quite meaningless. To a greater or less degree it depends on the specific gravity of the iron, whether still etched, rocked, brushed, face up, face down, by machine, tub, or tray. Notwithstanding all these variable features, it is believed there is a close practical relation between the tone value and its corresponding depth. This simplifies the question and demands only the determination of depth at specific tone regions to secure relative values comparable among the various plates turned out and their lines per inch.

In view of the fact that three main tonal regions are commonly used by process workers, the question naturally arises as to what dot sizes are found in such

regions. The middle tones of a given surface represent one-half (50 per cent.) white and the other half (50 per cent.) as the printing surface or black. This is well known, but what the tonalities of shadow or high-light dots are, is not generally understood. The smallness of the shadow dots, even though extra deep, is limited by the "bridging" action of the ink and that of the high-light dots by the mechanical structure of the dots, which must be strong enough to withstand the pressure of the press in printing. Right here it may be well to record the belief that more trouble is caused in the high lights through dots breaking off on account of lack of unison between the travel of the printing face of the dots and the face of the paper than through the dots breaking down due to an end-on pressure alone. A very slender metal stem will stand considerable endwise pressure before collapsing, but it does not take much to sway it sideways, and this, repeated thousands of times in the course of ordinary runs, must eventually break off the tiny high-light dots and cause smudging of over-etched plates.

A safe average tone for high-light and shadow dots is one of 5 per cent, meaning 95 per cent. black in the shadows and the same percentage of white in the high lights. It is as impossible to consider the practical and theoretical relation of these features and their corresponding depths in half-toning without figures as it is to carry through a business deal whether large or small, without recognising money values. Fortunately, in process work not all the mathematics are

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complicated. One must first consider that the etched plate is made up of a multitude of small squares whose sides are the line pitch. At 65 lines this would be $1/65$ inch (153.8); at 120 lines, $1/120$ inch (83.8); 150 lines, $1/150$ inch (66.6), etc. These are given in their decimal equivalent in Tables 3 and 4. Each square represents a certain part of a square inch, as, for instance, $1/65 \times 1/65$ (.0153" $\times$.0153") equals .0002365 square inch, or, in shorter terms, 2,365. These are called UNIT SQUARES because they are the basis on which all tone comparisons must be made. They are listed in Table 4 for different lines per inch.

In Table 2 there are given the sizes (diameters) of high-light and shadow dots of uniform five-per-cent tone values at various lines per inch. From these it will be seen that a high-light dot 38.8 (.00386") for 65 lines has the same tone value as a 12.6 (.00126") dot of a 200-line plate. The change in dot sizes for uniform middle tones is also shown in this table.

Table 1 shows the relation of such depths to the tonal regions mentioned and the dot size disclosed in Table 2. This table also gives the different screen or line pitches from which a direct comparison between the depth, size and frequency of round dots can be made in values of .0001 inch without referring to Table 4. Square dots having the same area are found to be a little smaller. For instance, five-per-cent high-light dots at 100 lines per inch have a printing surface of .0000050 square inches (50.) and a diameter of 25.4 (.00254"). If square, they will still have to be the same in area and the sides will approximate 22. (.0022").

The average of many equalised depth measurements is given in Table 1 for nine

different grades of lines per inch and at the three fixed tonal regions. From this table it will be seen that the depth of 200-line shadow dots is practically one-half their diameter; the middle-tone dots a little less than one-third the diameter, and the whites around high-light dots are a little deeper than their diameter.

For 65-line screens, the depths of shadow dots are about $1/3$ their diameter, middle tones about $1/5$ and high lights a little larger in diameter than the depth. Putting the depths on a different basis and comparing them with the ruling of the screens, one finds that for the three tones at 200 lines the depths of the shadows to be $1/10$ of the pitch, middle tones $1/5$ and high lights about $1/4$. At 65 lines the relation would be nearly $1/12$ for the shadows, nearly $1/6$ for middle tones and $1/5$ for the high lights.

Still another basis of comparison would be the depth in relation to the nearest approach of the adjacent edges of two high-light dots. This would possibly be a fairer index of printing quality than any other. At 200 lines the nearest edges would be the dot diameter, 12.6", subtracted from the line pitch, 50", leaving 37.4". The depth given is 14", which is between $1/2$ and $1/3$ of their nearest approach.

The study of such infinitesimal dots should be of as much interest and more value than the consideration of many so-called necessary things, because, unless these fundamental mathematical relations are maintained knowingly or otherwise, no successful results will be reached. In general, the apparent tone values are the only index which is followed. The marvel is that with from 10,000 to 40,000 dots per square inch of 100- and 200-line plates on this basis, the practical results are as

perfect as one finds them. This should be the greatest possible incentive to know more of the separate dots that must be individually correct before any group of them can properly constitute a pictorial reproduction. The answer is found in a short sentence. DON'T GUESS. MAGNIFY AND MEASURE.

NOTE.—All the depth measurements have been confirmed with the compound microscope at a magnification of 228 diameters.

The test plates from which the measurements of Table I were secured, comprised separate tone values, consisting of three 2 inch by 2 inch squares on one flat-etched plate representing approximately 8.7% uniform “shadows,” 48% uniform “middle tones” and 9.4% uniform “high lights.” Six separate plates were etched at 65, 85, 110, 133, 150 and 175 lines per inch. The values for other lines per inch have been interpolated from the graphic curves of the specific ones under test.

This table is not to be compared directly with Table II because the latter is based on staged plates. So long as the dot structure in the high lights is not weakened or the side action on any part of the plate does not deteriorate, the “colour” or the faithfulness of pictorial detail depth can be increased, not indefinitely, but arbitrarily, to a marked degree so as to make half-tones available for use on uncoated papers, etc. Any set of depth figures is of relative value because exact conditions cannot always be duplicated. Yet if enough data could be gathered together to strike an average for a very large number of plates, it would be possible to establish a standard depth for each change in tone value at various lines per inch, from which etches of less depth could be called “shallow,” those of greater depth, “deep etched,” and the ones between, “standard depths,” always bearing in mind that the high lights must invariably be deeper than the shadows.

Table I. Machine-Etched Half-tone DEPTHS of various Lines per Inch. (Flat Etched.)

TONES	Lines per inch	200	175	150	133	120	110	100	85	65
Shadows		6.0	6.5	7.0	7.5	8.0	8.5	9.0	10.0	15.0
Middle Tones		10.0	11.0	12.5	13.5	14.5	15.5	17.0	20.0	28.0
High Lights		8.0	8.5	9.5	10.5	11.0	12.0	13.0	15.0	22.0

Values in .0001 Inch.

Table II. Hand-Etched Half-tone DEPTHS at Various Lines per Inch. (Staged.)

TONES	Lines per inch	200	175	150	133	120	110	100	85	65
Shadows		6.5	7.0	7.5	8.0	8.0	8.5	9.0	9.5	10.0
Middle Tones		12.0	13.0	14.0	15.5	16.0	17.0	19.0	21.0	24.0
High Lights		14.0	15.0	17.0	19.0	20.0	21.5	24.0	27.0	32.0

Values in .0001 inch.

(1) Table III. Summary of Half-tone DEPTHS at Different Lines per Inch—Being the Mean of Numerous Tabulations.

Tones	Lines per inch	200	175	150	133	120	110	100	85	65
Shadows		5.5	6.0	7.0	7.5	8.0	8.5	9.0	9.5	13.0
Middle Tones		11.0	12.0	13.0	14.5	15.5	16.0	17.0	20.0	26.0
High Lights		14.0	15.5	16.5	18.5	20.0	21.0	23.0	25.5	30.0

Values in .0001 inch.

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(2) **Table IV. Showing Variations in DOT SIZES (Diameters) at the SAME TONE VALUE for Different Lines per Inch.**

TONES	Lines per inch	200	175	150	133	120	110	100	85	65
5% Shadow or High Light Dot Diameter		12.6	14.4	16.8	18.9	21.0	22.7	25.4	29.7	38.8
50% Middle Tone Dot Diameter		39.9	45.6	53.2	60.0	66.5	71.8	79.8	93.8	122.6

Values in .0001 inch round dots only. Square dots of same tonality are slightly smaller.

(3) **Table V. Showing the Relation of DEPTHS and DOT SIZES (Diameters) at Various Lines per Inch and at the Same Tone Value.**

TONES	Lines per inch	200	175	150	133	120	110	100	85	65
5% Shadow Dot Diameter		12.6	14.4	16.8	18.9	21.0	22.7	25.4	29.7	38.8
DEPTHS Table 1		5.5	6.0	7.0	7.5	8.0	8.5	9.0	9.5	13.0
50% Middle Tone Dot Diameter		39.9	45.6	53.2	60.0	66.5	71.8	79.8	93.8	122.6
DEPTHS Table 1		11.0	12.0	13.0	14.5	15.5	16.0	17.0	20.0	26.0
5% High Light Dot Diameter		12.6	14.4	16.8	18.9	21.0	22.7	25.4	29.7	38.8
DEPTHS Table 1		14.0	15.5	16.5	18.5	20.0	21.0	23.0	25.5	30.0
Line Pitches		50.0	57.1	66.6	75.2	83.3	90.0	100.0	117.6	153.8

All values in .0001 inch. The line pitch is the distance between the centres of two adjacent lines.

(4) **Table VI. Showing Various Dimensions Relating to Different Lines per Inch.**

DATA	Lines per inch	200	175	150	133	120	110	100	85	65
Line Pitches (1)		50.0	57.1	66.6	75.2	83.3	90.0	100.0	117.6	153.8
Diag. Pitches (1)		70.7	80.8	94.2	106.4	117.8	127.4	141.3	166.3	217.5
Unit Areas (2)		250.0	326.0	443.5	565.5	693.9	810.0	1000.0	1380.0	2365.0
Dots per sq. inch		40,000	30,625	22,500	17,689	14,400	12,100	10,000	7,225	4,225
5% Dot Areas (2)		12.5	16.3	22.2	28.3	34.7	40.5	50.0	69.0	118.0
50% Dot Areas (2)		125.0	163.0	222.0	283.0	347.0	405.0	500.0	600.0	1182.0
Screen Openings (1) *		25.0	28.5	33.3	37.6	41.6	45.0	50.0	58.8	76.9
Screen Areas (2)		62.5	81.2	110.8	141.3	173.0	202.5	250.0	345.7	591.3
Lines per c.m.		78.7	68.9	59.0	52.4	47.2	43.3	39.3	33.4	25.6
Gravure Screen Openings (2)										
Gravure Screen Lines (1)										

(1) In .0001 inch.

(2) In .0000001 sq. in.

* At a 1 : 1 ratio of line to opening.

MEMORANDUM.

Average Loss of Depth between Half-tones and Electrotypes.

Loss in .0001 inch	Shadows	Middle Tones	High Lights
	2	2.4	3.9

Electrotypes for the three main tone regions are shallower than the original to the extent indicated above and it is believed to be fairly uniform for all screens. The reason for the variation of loss is uncertain.

THE FIRST AXIOM OF BUSINESS.

If you have bought an article cheap, and the market has advanced many shillings since your purchase, you may be tempted to make a cut line of it and undersell your neighbours. Before doing this, ask yourself one question - what will it cost me to

replace this article when it is sold out? Always follow the market no matter how cheaply you have bought in at. It is the only sure way of making a business a success. Let your mind go back a few years and try and count up the number of men who have made a fortune by cutting prices. Can you count them on one hand?

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MAY,
1918.

THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

The Magna Charta of the Process Trade.

A photo-engraving is not a commodity or article in common use. It is an art or process. I believe therefore that neither the members of the labour union nor their employers have violated the law. I believe that they have successfully supported their contention that their agreement is not only innocent but that it has resulted in bringing harmony and stability where formerly chaos, contention and disorder were found. The business in which these defendants are engaged cannot be called manufacture or production or sale within the ordinary sense of those terms. The employees give their services and their employers provide a place for them to ply their trade or calling, and supply them with the necessary tools and implements and materials. Photo-engraving is rather to be regarded as an art or process. The defendants are not prohibited by the statute from dictating the terms on which they shall render their services, since their labours cannot in any proper sense be said to result in the production or sale of an article or commodity in common use."

—Judge F. Mulqueen.

York publishers objected to their demand for a fair and uniform price for the work they produced.

Hitherto the conditions had been similar to those which obtained for so long a time in this country, viz., every process-engraver a law to himself, fighting for his own hand. As a consequence he was the victim of his customers, especially those who had a fair amount of work to place, and who made it a point of honour to shop round for the lowest bid. Every process-engraver throughout the world knows the common practice. Consequently, when the New York houses got together and adopted the uniform minimum scale of prices worked out by the International Association of Manufacturing Process-Engravers, which had been founded upon the known costs of thousands of process blocks that had passed through many of the houses, and had come to an agreement with their workpeople upon similar lines to that prevailing in our own Federation, there was no great surprise that the publishers were up in arms and set the law to work, and did everything possible to break down the agreement.

They selected nine of the leading engravers of the state as their intended victims, and so successfully did they lay their plans that they secured the fiat of the District Attorney to hale these nine

WE very heartily congratulate our brother photo-engravers in New York upon so successfully coming through the lawsuit in which they have been involved simply because the New

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men before the courts and indict them for conspiracy and for violating the anti-trust laws of the State.

If our memory serves us correctly it is now nearly two years since the indictment was laid, during which period the case has come before the courts for hearing several times. In fact, so important was the case considered by the courts, as well as by those interested, that it was not only argued, but subsequently re-argued, fourteen counsel being engaged throughout. Further, the courts arranged that all parties should attend at one of the engraving plants in New York and follow minutely every phase of the work as it passed through the different departments.

It seems perfectly evident that the judges, the public officials, etc., were most anxious to arrive at a just and unassailable conclusion, so bent every energy to that end, and allowed every latitude to either side to bring all the evidence they could secure that should bear upon the subject. For the important point to be settled once for all was, Is process engraving "a process or art the produce of which is non-merchandise," or "an article or commodity in common use."

Bearing on this point there seems to be a lot of common sense in the quotation given from a judgment in a case in which lithography was involved, and was as follows: "The contract to manufacture and furnish articles for the especial, exclusive and peculiar use of another, with special features which he requires, and which render them of value to him but useless and unsalable to others; articles whose chief cost and value are derived from the labour and skill bestowed upon them, and not from the materials on which they are made, is a contract **for work, labour and service**, and not a contract of sale."

A photo-engraving, said the Judge, is always made upon special order. It is useful to the particular individual for whom it is designed, and for the particular occasion, and is useless or worthless to the public at large, or to the producer in his business. In other words, a photo-engraving is non-merchandise and unsalable in the market. It has no market, general or special. . . . Clothing, shoes, toys, etc., are sold in shops in all countries of the world, and are bought by the people, but **I venture to assert that no one ever saw a shop for the sale of photo-engravings.**

A photo-engraving is certainly not a commodity if it is made to order for a special use. It might become such a commodity if produced for sale to the public in general to be used by anyone who might happen to purchase it.

Judgment was therefore given for the defendants in the terms of the quotation at the head of this article, and it seemed to us so interesting to the trade all over the world that we have given as full a summary as possible of the Magna Charta of the process trade. We once more congratulate our New York brothers upon their success.

BEFORE the written or printed word for conveying intelligence existed, the picture sufficed, pertinently points out "The Eclipse."

The picture has an unusual appeal: is a universal language.

The eye understands what the ear may not. Whatever one's tongue the picture speaks it. It needs no translating; no dictionary.

Advertising men and others who are prone to rank Words above Art might do well to reflect upon this, long and profoundly.

The Annual Meeting.

THE Second Annual Meeting of the Federation may be looked upon as a great success. Just about half the number of the houses in the country were represented, every large house having its delegates, some coming from the far north, the Midlands, and the Emerald Isle.

Every one present seemed quite at home. There was a very signal air of that family feeling which goes so far to make a meeting a success. In this respect it was a great advance upon last year.

It is quite evident that we are getting to know one another much better. As Mr. Entwistle remarked, that feeling of distrust which prevented familiarity for so long a time has gone, and we believe has gone for ever. We have each met that black, bad competitor, and found that he was not black at all. We also discovered that he had been looking at us and was wondering whether the wearer of that genial smiling countenance was the bad man he had been painted, or whether he was actually what he appeared to be, a genuine, kindly business man intent upon doing his business as only an honest man can do it.

What a pity it is we cannot have more of these gatherings. They are such splendid opportunities for getting together and do so much good that we feel more of them would be of great benefit to the trade. Perhaps when the war is out of the way it may be possible to arrange something of the kind.

Shortly after the time arrived for opening the proceedings, the President mounted his throne, and a handsome throne it was, yet he did not appear at all abashed to be surrounded by such magnificence, and to occupy such an imposing chair

from which to conduct the proceedings. On either side of him were lesser thrones, one for the Vice-President, the other occupied by one who may be looked upon as a some-day President—but not yet.

Though the two lesser thrones were uniform, the same can hardly be said of the occupants, for he to the President's right was a man of powerful physical appearance, well set, tall and robust; while he on the left presented quite the contrast. But then he was the Vice-President, and what he lacked in physical appearance he made up in official dignity, so perhaps after all the two sides made a perfect balance.

The presentation of the Balance Sheet and Report by the Secretary showed that the finances were on a sound basis, a fact the meeting soon grasped, and felt it quite safe to pass them as satisfactory. So we passed on to the election of officers, which for the minute or two looked as though it would present some difficulty.

We have wondered why it was the President endeavoured to pass his cloak on to some other shoulders. He can hardly be tired of the position, for he has only held it for one year—that is, since the Federation was established—yet he seemed determined to get rid of it, and tried to make it fit first one, then another—but it was no use. The cloak had been made to fit him, and it was too large for one and too small for the other upon whom he tried it. So after a little sparring he succumbed and consented to wear it for another year, and without doubt he will do so gracefully.

The election of the other officials and Council did not take much of our time, and we congratulate Mr. Atkinson (Garratt &

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Atkinson), and Mr. Perry (The Direct Engraving Co.) upon their election to the two vacant positions upon the Council. May they bring to it some fresh view points and so strengthen the deliberations.

The President gave us a really good presidential address, which will be found in another column. It was listened to with very great care and attention, and was very heartily applauded.

Now came the lunch, without coupons, which of course meant that there was nothing in the shape of meat supplied (beside, it was a meatless day in London). We had therefore to be content with the four courses of the best the caterers could provide, and to their credit be it said they served us well, and while we were enjoying the coffee and the weed, instead of joining in the general gossip usual at such times, the President informed us that he had asked Mr. Benn to address us now instead of when we returned to the Council Chamber. It was a happy idea of the President's, but then he is always doing the right thing at the right time.

Evidently Mr. Benn felt quite at home, and as we give a summary of his speech elsewhere, sufficient to say that he was received with a very hearty welcome, was listened to with careful and earnest attention, that his points were appreciated, and that he made such an effective appeal that he completely carried his audience with him, and of course was very heartily thanked for the effort he had made to be present with us.

Returning to the Council Chamber, Mr. Vaus, the Vice-President, spoke upon the metal position, and gave us a none-too-hopeful report so far as the immediate future is concerned. The burden of his remarks may be summed up as "Economise, economise, economise!"

From metal we transferred our attention

to paper, Mr. Bailey, the Auditor to the Federation, giving us the benefit of his experiences in dealing with the Paper Controller, and from his remarks it would appear that there is little likelihood of much paper being available for commercial purposes during the present year.

Mr. Entwistle had a very interesting report of the doings of the Northern Federation to present. What a pity some other groups of towns do not form similar circles; it would do good in every way and strengthen the bond of union between process-engravers.

Some other matters affecting different phases of our work were considered, and various resolutions passed affecting the employ of provers, the inclusion of newspaper houses in the Federation, and that question which bulks so largely just now in practically every walk of life, viz., increased remuneration to the workers.

And so a most interesting and helpful meeting came to an end, the President being heartily thanked for having so successfully conducted the proceedings.

Save Light.

ONE way to prevent waste of light in the printery is to see that the office or workrooms receive the benefit of all gas or electricity that is burned. One clean electric bulb will give almost the same amount of light that can be obtained from two dust-covered bulbs. All bulbs, reflectors and other light fixtures should be cleaned at regular intervals.

Many workrooms are in semi-darkness in the day-time because of a film of dirt that makes window panes opaque rather than transparent. Glass is used for the purpose of admitting light and not excluding it.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. F. H. VAUS,
Messrs. Vaus & Crompton, Ltd.,
Kirby Street, London, E.C. 1.

Treasurer—

MR. EDWARD W. HUNTER,
André Sleigh & Anglo Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.

Telephone: 5596 Bank.

Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an Open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

Report of The Second Annual Meeting of the Federation.

THE Second Annual Meeting of the Federation of Master Process Engravers, held at Anderton Hotel on Tuesday, March 26th, showed the deep interest taken in the doings of the Federation by the members thereof.

The attendance was larger than at the meeting a year ago, and if the evident interest taken in the proceedings by the members is any indication of their attitude toward the movement, then it is quite evident the Federation has a very successful future before it, for there was present that spirit of helpfulness that means so much in successfully handling the many questions that have to be considered by such a meeting.

Viewing the meeting from every standpoint, the Federation has cause to be abundantly satisfied with the success of its second Annual Meeting.

At the appointed time the President called us to order and asked the Secretary to present the report of the accounts for the past year, which showed that the income had rather more than met the necessary demands made upon the Treasurer, a result which showed that the annual subscriptions had been very wisely fixed at an amount such as will meet all the working expenses and leave a small

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surplus for investment as the nucleus of a fund that can be held in readiness for any emergency that may arise, for in times such as these no one can tell what may appear at any moment, and if a small fund is in existence as a reserve it may be found extremely useful.

The Accounts had been duly examined and found to be in good order, and the Balance Sheet, which had been signed by the Auditor, was accepted and passed.

The election of the President for the ensuing year was the next business, and it was soon seen that the choice of the meeting was that Mr. A. Dargavel should hold that position for another year, the proposer and seconder both bearing testimony to his ability and work during the past year.

Mr. Dargavel, however, felt he would like to be relieved of the position, and asked the meeting to choose another President ; but as one after the other bore testimony to the evident wish of the meeting that he should retain the position for at least another year, he eventually gracefully bowed to the general wish and consented to the nomination, and of course received a unanimous vote, which he acknowledged in a few kindly words.

Mr. F. C. Vaus was nominated for the Vice-Presidency, and though he said he felt a change would be desirable he fell in with the wish of the meeting, accepted the nomination, and retained the Vice-Presidency for the coming year.

Mr. Bailey, the Auditor, was thanked for his services, and was unanimously re-appointed.

In accordance with Rule 5 members of the Council were due to retire— Messrs. Dent, Eamer, Greenhill, Harris and Holt. All but the first-named being willing to

serve for another term, were re-elected, and as another member of the Council had decided that through ill-health he felt he could not continue to serve the Federation, there were two vacancies to fill, and Messrs. Atkinson and Perry were unanimously elected to the vacant positions.

This formal work being disposed of, the President met with a round of genuine applause as he rose to deliver the presidential address. He first of all extended to those present a cordial welcome, and bid us feel thoroughly at home and free to express our thoughts as occasion might require. Unfortunately, he proceeded, the war with all its drawbacks was still with us, but as a trade we have much to be thankful for, inasmuch as in such a critical period of our country's history we have been able to establish a system by which we have managed to meet the special difficulties by which we have been beset, a system which, if we are wise we shall never let go when peace is once more restored. The agreement has been in operation about fifteen months, and the members seem fully satisfied with their experiences. Of course, amid the variety of conditions that exist in process houses throughout the country, minor matters have cropped up occasionally that needed attention, but it is remarkable how thoroughly the scheme has fitted the requirements, and has met with such a great amount of success. The work of the Committees and Council has often been arduous and demanded a great amount of time and attention, but the members had given their time and efforts freely and cheerfully for the benefit of the trade. The Metal Committee calls for special mention, for their work has been very exacting and onerous, and has sometimes

been made more so by members who seemed to forget that the trade was rationed, and that the ration was not unlimited, and that the Federation had not sought this office, but had been called upon by the Government to undertake the distribution of this class of copper and zinc for all process-engraving purposes. It may therefore be judged how difficult it was to always hold an even balance, but the Committee has made a special point of rationing fairly all round, and he felt sure they had succeeded. Out of the year's work one fact had emerged that at one time seemed to be thought impossible, viz., the ability to conduct our businesses without the excitement of price cutting and keen competition; to-day with an agreed schedule of prices we have a great deal more peace of mind and can conduct our business with much more satisfaction. We can look back on the previous wretched condition and say what a blessing that has gone, let us hope, for ever. Another reason for satisfaction is that our employees have been better paid, and it is rumoured that they, in common with other industries in the country, will be asking for still higher wages. This leads to the apprehension, in some quarters, that the demands of labour in general may ultimately reach a point which may be injurious to the interests of the country, as a producer of goods for the world's markets. No doubt this is a question which will receive close attention at the hands of the Industrial Councils, and it will probably be conceded that if employees are to be highly paid a proportionately higher standard of output should be maintained. In all our negotiations with the Men's Society the leaders have met us in a fair and moderate spirit. They have agreed to dilution, and

arranged terms by which a given number of females may be brought into the trade purely as a war-time measure. This, from the men's point of view, is a very great concession, as it breaks one of their most jealously guarded principles. Further they have agreed to admit disabled soldiers and sailors, and to a very liberal relaxation of their rules relating to apprentices during the period of the war. These concessions have made it possible to carry on, though it may be in some cases with extreme difficulty. Finally, the Men's Society have put the finishing touch to the agreement by arranging that their members should work in Federation Houses only, and it is a matter of satisfaction to the trade that this point has met with such full recognition. I believe there is in every member a feeling of confidence that the price schedule is being strictly maintained and that there are no evasions being attempted. We have had a complaint or two that cinema houses have been allowed a trade discount. If such is the case, it is pointed out that trade discount must not be given to anybody except bona fide traders as defined by the Federation, and the class of house mentioned *does not* come in that category. There is always room for competition, so let us compete with clean hands. We have set our business up as an honourable craft, and it is up to us individually to maintain it as such. Remember the great part process engraving has played in the past; also in the war. Let us bear in mind what it will do for the country after the war; probably no other trade, in proportion to its size, will have such an important influence in the development of industries and commerce. In the meantime we can face our difficulties with confidence, for notwithstanding the heavy demand for men

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for the army, and national service, the shortage of metals, the paper restriction, etc., which at times has made it seem as though the whole trade would be brought to a standstill—a danger even now not entirely eliminated—we have so far weathered the storm and come safely through. This should therefore encourage us in the hope that in spite of the dangers which threaten, we may be able to carry on with a reasonable prospect of success until a satisfactory peace is declared. (Applause.)

The appointed time for lunch having arrived, the President called upon us to follow him to the luncheon room, where a meatless feast was provided, to which all present did full justice.

At the close of the luncheon, and while coffee and cigars were in full swing, the President announced that he had asked Mr. E. J. Benn to give us his address in the genial atmosphere of the luncheon room, rather than in the more cold and formal Council Chamber, a decision that was evidently to the liking of the audience.

The President then, in a few choice words of welcome, introduced

Mr. Ernest J. P. Benn, the Chairman of the Industrial Reconstruction Committee, to the meeting, and he received an enthusiastic welcome as he rose to speak. He commenced by paying a warm tribute to the work of the Federation of Master Process Engravers, for though not one of them, he was closely allied through the exigencies of business, and so was brought into contact with their work in various ways, and was rejoiced to know that through the efforts of the Federation the craft had been rescued from the down-trodden condition in which it found itself in pre-war days, and could now be looked upon as one of the foremost organisations

of the day. But even with the Federation organisation, good and workmanlike as it was, he would say most emphatically: Adopt the Whitley scheme so far as it can be made applicable to the trade, for though the present arrangement may be considered thoroughly satisfactory as a working agreement, and is doing good service as between employers and employees, yet it has no representative body such as is outlined in the report referred to, to which the Government officials can turn for the most complete and accurate information they may require concerning every phase of the trade. At present the Government cannot get accurate technical and practical advice because there is no body in existence through which it can discover the mind of the trade, and it is this lack that has so often led Government Departments to fall into error, not because of any wish to go wrong, but merely because they have had to depend upon information secured from individuals here and there rather than from representative bodies embracing both masters and men. You will therefore see that unless you have some such council thoroughly established you have no representative body through whom you can negotiate with the Government when occasions arise, as arise they will, for such negotiations. A vital principle of such Councils is that they must be representative. They must not only represent the one hundred employers but also the five thousand employees, and if such a council is set up, one-half of the whole being from the employers' organisation and the other half from the employees' organisation, it will be a thoroughly representative body fully conversant with both sides of any question to be discussed, and able to give an authoritative answer to any query put

to it. By this it is not to be supposed that it is intended that the employees are to be called upon to interfere in matters pertaining strictly to the directorate and policy of the company, the Federation, or the Unions. Such matters do not come within the scope of their purview. Still there are a great many matters connected with the everyday workshop conditions and experience in which the men have a very vital interest, and given the opportunity there can be no doubt that they will bring a measure of intelligence to bear upon such subjects that will be for the ultimate benefit of the firms as well as for themselves. There are many things in which these Trade Councils will be called upon to take an active interest, among which may be mentioned such questions as education, scientific research, statistical research, costing, etc., etc. To-day the nation is spending something like £50,000,000 per annum on education, a considerable part of which goes for trade schools. Surely the spending of so much money upon the education of the youths who will form the workers of the coming generation is well worth the attention of those interested in the various trades, so that they may see the requisite sums are being spent in the right direction for the technical instruction of those who will be the future workers in those particular trades. Therefore, these Councils would make it a part of their duty to see that the higher branches of trade technical information are placed at the disposal of the learner of to-day. Then there will be many problems to be solved in the near future, many of which will need all the knowledge and experience of the respective trades to which they refer, so that they may be solved in the best possible

way. Many of them will be very serious problems indeed. For instance, demobilisation, which will make a very severe call upon the best brains of the country. To-day there are 10,000,000 people engaged on war work, all of whom have been gradually called from their various positions in the labour and home world and directed into an entirely different sphere. The great question is how are these 10,000,000 people to be retransferred from their war occupations and got back into the ordinary channels and business occupations of the country. It is a great problem and must be solved in a better way than has been the case in any previous war. There must not be any processions of "out of works"; it is unthinkable that men who have been called upon to jeopardise their very lives should be left to do the best they can when they are no longer required for fighting purposes. Another important question that will call for solution is which class of man shall be demobilised first. As you are aware, there are in practically every trade positions—key positions if you like—in which one man may be the pivot around which ten or twenty others may revolve. It is therefore manifest that such a man should be among the first to be liberated, and it is only through your joint councils that the Government will be able to find out this class of men, and so be placed in a position to act intelligently. Consequently your and other Trade Councils should be ready and prepared to act and give this requisite assistance as to the order in which men of the various trades should be demobilised, and I am quite sure you will find there is a great deal in that question. Therefore, I say it is essential that you should get to work at once and be ready to take your share in

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preparing the necessary information that will enable you to give good and sound advice when it is needed. Another important problem will be connected with the question of the rationing of material, for at the end of the war it is surmised that there will be only one-third of the pre-war tonnage available for commercial purposes. If this be the case it is very evident that shipping facilities must for a very considerable time be strictly rationed, and who but the trade concerned can provide the information upon which such rationing should be conducted, and how better can any trade procure that information than through the labours of a trade council, such as that suggested? A further problem that will need careful attention is the disposal of Government stores, for at the end of the war practically everything in the country will be either the property of, or controlled by the Government, and if we are to avoid scandals, such as have been found to exist at the disposal of stores after other wars, the various trades must come to the help of the Government. How else can the Government do the best possible in the matter? Then the trade councils must take their proper share of the work and be prepared to show how best the work can be done with the least harm to the trade of the country; to point out how such stores can be distributed to the greatest advantage, so that no trade may be swamped by an enormous quantity of the second-hand plant being thrown indiscriminately upon the market. Apprenticeship is another question of vital interest to these trade councils, especially so far as the question of apprentices returning from the war is concerned. How can these boys and the individual masters arrange such matters satisfac-

torily? It is practically impossible. Such matters must be arranged by the trade as a whole, so that there may be uniformity throughout the trade or industry. I would again urge upon you the adoption of the Whitley scheme, if only for the purpose of securing uniform conditions throughout all trades, or even as an incentive to others to follow suit. I am quite sure there is a great deal of work that can be successfully done even in your own trade, after allowing for the organisation you have already brought into existence, and I hope I have said something this afternoon that will help you to decide to do something in the direction of forming a joint committee for the process trade. I know it is often felt difficult to take the first step. If it comes from the employers' side the employees are apt to look upon the invitation with suspicion, and if it comes from the employees' side the employers are apt to act in like manner. Therefore a means of escape has been provided. The Ministry of Labour can invite both sides to an informal meeting, and after the head of that Department giving them an address he can quietly withdraw and leave the two sides together to talk the matter over and formulate a plan for working out the details. In conclusion I would again say that while it is fully realised that you cannot give your workmen the control in your industry, I am quite sure there are many great questions where their advice and interest may be of exceeding great value, and by joining with them in forming these joint councils you will be not only doing something to help your own industry but doing something to settle the feeling of unrest that is no inimical to the best interests of both masters and men. (Applause).

A short conversation ensued, after which the President warmly thanked Mr. Benn for his address, and assured him that his words had not fallen upon idle ears.

Upon resuming after lunch the Vice-President, Mr. F. C. Vaus, gave a report upon the present position of the trade in regard to the metal question. His remarks may be summarised as follows :

This, as you know, has been one of the most difficult problems your Council has had to contend with. Yet I do not think it is necessary at this period to go over all the details in connection with these difficulties we have had and are having. You are aware of all the preliminary troubles, how our applications to import the metals were turned down, and how eventually we succeeded in securing the permit to import both zinc and copper. Up to the present, although the supplies have been short, the trade has managed to keep going, which is saying a great deal. Just lately we have experienced a greater difficulty in importing the amount granted. The Board of Trade licence for zinc for twelve months was ten tons per month—120 tons. Up to the present we have had about 84 tons. This includes 15 tons newspaper zinc, which may be deducted from future supplies. We have received Board of Trade licences to import 114 tons of copper (three lots of 38 tons each.) Of this we have only received about 61 tons. The authorities are quite in sympathy with us, and only a short time ago a special cable was sent by them to the Government Transport Office in New York to endeavour to give preference to the metal to be shipped, through the appointed agents, and I believe now we can look forward to a more satisfactory result than we have

had of late. But we know full well the difficulties. Every foot of the vessels is required for food, munitions, and other things in connection with carrying on the war. Still we have pressed forward time after time, even supplying the authorities with diagrams to show how small a space is required for a few tons of the metal. For some time now there has been practically no copper at all in the country for distribution to our trade, but I am happy to say that we have received information that some 1,300 sheets are already shipped, so we hope to get this through pretty quickly and to make a further distribution. There is plenty more all ready to ship, and now the authorities are moving in the right direction this supply should be fairly regularly kept up. Zinc is now a great difficulty, but we are fortunately able to send out another rather small ration to everyone, and hope later on to deal more liberally. I cannot help thinking that the new restrictions on paper will naturally curtail our wants in both zinc and copper, so that if our supplies now continue to come in we hope there will be no serious shortage. But it behoves us all to be as careful as possible, and to use up all our small pieces and reserve the larger pieces as long as possible. But should any one find he could lend any of his brother engravers a few sheets either in London or the Provinces, we should be very glad if he would give the Secretary the hint. We could then advise the member requiring same and so be of great assistance to each other. I repeat the hope that within a short time we shall be able to be more lavish with permits so that there will be no nervousness of further shortage.

Mr. H. Entwistle presented the report of the Northern Association, which showed

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how valuable such associations can be if properly conducted. The Northern Association consists of seventeen firms, and has held eleven meetings during the year, and the work has grown so enormously during the last twelve months that it was found necessary to appoint a paid Secretary, who has given great attention to the work and has met with the hearty approval of the members. The Association has been the means of bringing many members of the trade into much closer touch with the Federation than could have been possible without that organisation and with resultant benefit to all concerned, and so great are the advantages felt to be that the Northern Association very heartily recommend other districts to form similar associations, from which they believe like good results will be received. That the Northern Association has been busy during the year was shown by the long list of *special* subjects, twenty-six in all, that had been considered at the various meetings, and the decisions arrived at had been duly communicated to the Federation Council.

Mr. P. J. Bailey spoke upon the new paper restriction order, which it is anticipated may have such a vital effect upon process work during the coming year. He dealt briefly with the effect of the recent Regulations of the Paper Commission and the Paper Restriction Order upon the process trade, and stated that the Council had thought it necessary to issue one or two warnings to the trade, the first being that the supply of paper has now been reduced to one-sixth of the pre-war supply, and could only be supplied to firms giving reasonable notice to their paper supply houses of the supplies to which they are entitled on this basis, and that such notices must be in three four-monthly periods.

Mr. Bailey also pointed out that such notice operates as a firm order unless by agreement, but that firms would probably be quite safe in giving such notice, as if they did not require the paper when the time came they could no doubt place it elsewhere or get the supply house to do so for them, or relieve them of the order. He advised members not to sell paper out of stock to customers, for any printing orders that may be undertaken, but to buy it at the current market price, retaining their stocks for use for their own proofing work when suitable. He advised that the number of proofs should be restricted as much as possible, and that proofers should be instructed to make all proofs on paper as small as suitable. He also warned members that the restriction of paper throughout the whole of commerce would probably result in a considerable reduction in both the size and quantity of blocks ordered.

Another subject that was of the most vital importance to the meeting was the request put forward by the representatives of the Men's Society for a further increase of wages to the extent of 10/- per week. Of course it was quite impossible to settle such a question as that in the atmosphere of a General Meeting ; still, it was a subject that may have a very important bearing upon the future of the trade. It was therefore only natural that a great deal of interest should be manifested. Consequently it led to a very full discussion, by which the Council, who will have to carry on the negotiations, was put in possession of the views of the meeting. One or two other minor matters occupied the attention of the meeting, and were referred to the Council, and the meeting came to an end with a vote of thanks to the President for so ably conducting the proceedings.

✓ *Have Extra Fountains for Colours.*

By Robert F. Salude.

AFTER a platen press fountain has been used for black or blue, it is difficult to wash it clean enough to take red, yellow or delicate tints without these colours becoming "dirty" to an extent from remains of the dark inks. To overcome this trouble, not a few managers of job-press departments have separate fountains for reds and light colours. One fountain is kept exclusively for yellow and tints, one is kept for reds, and so on. This plan is the means of considerable time-saving in wash-ups, and there is a certainty of pure colour in fine printing.

In one plant five Colt's presses are used constantly on three-and four-colour process work. For each machine there are three fountains. One is used for blue and black; another is used only for red, and the other is for yellow. There are also separate sets of rollers for red and yellow inks. As a forme is changed from "blue" plates to "yellow" plates, for example, the rollers and fountains are also changed. Every time a change of this kind is made it means a saving in wash-up time. Moreover, it means that there is no possibility of the yellow turning light olive-green through "leavings" of blue or black on rollers and in fountain.

To prove how easy one colour can be affected through the remains of some other darker colour run previously, the following illustration is offered: One concern makes a specialty of printing in copying

ink. Some of this work is printed in brilliant red, some other is printed in a darker red. Practical tests made in this plant demonstrated that it was impossible to run the light red "clean" with the same rollers and fountain used previously on the dark red. A complete change of rollers and fountain was necessary.

Process Engravers' Glue.

ON account of the scarcity and high price of American fish glue, due to war conditions, endeavours have been made to provide an efficient British substitute, and we are pleased to announce that a satisfactory and in every way efficient photo engravers' glue is now made by an eminent firm of long experience in glue manufacture—Messrs. J. & G. Cox, Ltd., of Edinburgh. After careful trial it is now offered to the trade with confidence that it will be found thoroughly reliable in every respect. The new glue is called the "Chanticleer," and is put up in standard British pints and quarts. This fact, added to the relatively low price of the "Chanticleer" brand, as compared with the American glue, makes for considerable saving. Messrs. A. W. Penrose & Co., Ltd., 109 Farringdon-road, E.C., are the selling agents for the "Chanticleer" glue, and they will be pleased to supply all particulars to those interested.

No one ever had much of a garden unless he planted something and kept on planting and caring for it. It's so with advertising.

How to Measure your Stops

IT is extremely important at the present time that young assistants should be taught to understand thoroughly the exposure-values of their lens stops. Guess work or miscalculations lead to the under-timing or over-timing of exposures, and, with the present shortage of material, the resulting spoilt negatives not only mean a serious loss to the employer, but help still further to aggravate the manufacturers' difficulties in keeping up supplies.

Even a modern lens, with its focal length given and its stops plainly marked in "f" numbers, is puzzling enough to the beginner; but a lens of an old type or a foreign make, with an unknown focal length and its stops marked in figures he doesn't understand, is a riddle which is beyond his power to solve.

The majority of professionals will remember being taught in their apprenticeship days that the "f" value of any stop could be ascertained simply by dividing its diameter into the focal length of the lens. They have found out since, no doubt, that absolute accuracy cannot be attained by this simple method. Strictly speaking, it is accurate only for a single lens, and then only when the stop is in front of the lens. It is quite near enough for measuring the stops of ordinary rapid-rectilinears; but a more precise method must be employed for portrait lenses or modern anastigmats with large apertures.

When a photographer attempts to check the "f" numbers on a high-class anastigmat lens by this rough and ready method, he finds that his results do not agree with the markings which have been adopted by the maker. At first he may suspect

the maker of exaggerating the speed of his lens—but this is a trick to which no reputable maker would stoop. The discrepancy between the maker's figures and his is due, in all probability, to his neglect of one important factor.

This factor, so often overlooked by the practical worker, is the difference between the effective aperture and the actual diameter of the stop used. When a stop is used between the combinations of a lens, the effective aperture is considerably larger than the stop opening, owing to the condensing power of that part of the lens which lies in front of the stop. The difference may safely be disregarded in a cheap lens working with a small stop; but it becomes a serious matter in an anastigmat lens working with a large stop, because the error is proportional to the size of the aperture.

A simple method of finding the effective aperture was suggested by the Royal Photographic Society in 1901. It recommended that the camera should be set at infinity or the lens focussed on a distant object. A thin piece of opaque card should then be placed over the ground glass; and a small hole, the size of a pin-head, should be made in the card exactly opposite the axis of the lens. The camera should then be taken into the dark-room and a lighted candle held near the hole in the cardboard. The effective aperture is the diameter of the beam of light which will emerge from the front surface of the lens. The easiest way to measure this beam is to fit a piece of bromide paper into the lens hood with its sensitive surface close to the lens, put on the cap and expose for about half a minute with the lighted candle. The black circle, which will be found on the bromide paper after development, will indicate the effective

tive aperture of the stop used ; and, if the diameter of this circle is divided into the focal length of the lens, the true "f" number can be ascertained.

If the focal length is not known, it can easily be calculated by focussing the lens successively at two different distances upon some suitable object, such as a foot-rule hanging vertical on the wall, or a square box placed upon the table. In each distance, the extension of the camera should be marked on the base-board and the height of the sharply focussed image marked upon the ground glass. Then if the height of the object in inches is multiplied by the distance between the two extension points on the base-board, and the product divided by the difference between the height of the two images on the ground glass, the result will give the focal length of the lens.

The Professional Photographer.

A COMPETENT authority has by a thorough investigation of 1,500 businesses in each of the lines named below, found that the following facts have been adduced :

	No. of times stock is turned over per annum.	Percentage of cost to do business.
Grocers	10	16 ⁰ / ₁₀₀
Department Stores	7	26 ¹ / ₁₀₀
Druggists	4	24 ³ / ₁₀₀
Dry Goods	4	23 ⁰ / ₁₀₀
Hardware	3 ¹ / ₂	19 ¹ / ₁₀₀
Furniture	3	24 ⁰ / ₁₀₀
Shoes and Boots	2	23 ⁴ / ₁₀₀
Clothing	2	20 ⁴ / ₁₀₀
Jewellers	1 ¹ / ₂	25 ³ / ₁₀₀

Somebody makes the remark, How much does it cost the process engraver to do his business ? Can YOU answer the question ? Don't all speak at once ; one at a time, please.

TAKE THE INITIATIVE

The War has demonstrated the value of the Initiative—the same quality in business is more than half the battle.

Always be POSITIVE

- ☛ Action is the putting forth of power, with heat, which is a form of energy.
- ☛ The spirited advance of arguments which are irrefutable makes them irresistible.
- ☛ The path of Progress fares forward to Growth and Gain.
- ☛ The positive natures that discover *how* anything *can* be accomplished invite

SUCCESS

Never be NEGATIVE

- ☛ Conservatism indicates lack of purpose just as surely as cold proves the absence of heat.
- ☛ Defensive arguments which attempt to justify inaction are dead things.
- ☛ The course of Reaction goes backward to Dissatisfaction and Despair.
- ☛ The negative qualities which suggest why something can *not* be accomplished spell

FAILURE

EUGENE PLUNKETT

"Paper does Express !"

SUCH is the message conveyed in a very striking booklet written by Frank Alvah Parsons, B.S.*

The author has made a thorough study of his subject, and having come to certain definite conclusions as to the suggestion that may be subtly conveyed to the reader through the medium of the paper used, proceeds to impart the information to his readers.

The question may be asked as to Mr. Parson's qualifications for the role he adopts. It may, therefore, perhaps be as well for the benefit of those unacquainted with the author to say that he is President of the New York School of Fine and Applied Art, Chief Instructor of Advertising arrangements at the New York University School of Commerce, and special lecturer before various Architectural, Apparel, Decorating, and Advertising Associations.

He is also the author of "Interior Decoration—Its Principles and Practice," "The Principles of Advertising Arrangement," and is co-author of "Advertising—Its Principles and Practice."

It is fairly evident that one who has attained to such eminence in the world of art and publicity is well qualified to deal with a subject that has such far-reaching possibilities as the language of paper.

The burden of this booklet is that a subtle impression can be conveyed to the mind of the recipient by the very handling and appearances of the paper used as the medium by which a message is conveyed, and it is the purpose of this booklet to analyse and tabulate the classes, shades of colour, quality, etc., of various papers,

and to enumerate in some measure the purposes for which they are most suitable.

There can be little doubt that in the near future the science of advertising will need to be studied more thoroughly by process engravers than has ever previously been the case, for it appears to us that process engraving will have to take the lead in applying art in its various characteristics to the purposes of the business community. No one knows what process can do so well as the process engraver. It therefore seems to us essential that houses who aim at being progressive—who desire to be in the van—must see to it that they have the most virile art department it is possible to secure, and that that department shall carefully study every phase of the adaptation of art to commerce. In such a department teaching such as Mr. Parsons indicates in this booklet will be invaluable. Of course, such a department would be an expensive one to run, but if adequate returns can be procured, and we believe they can, then "expense" simply becomes "investment," and an investment that may pay handsome profits.

Good ideas are expensive, says Mr. Parsons, and one who has them is ever in demand. But the man who has ideas and knows how adequately to express them, is rarer still and need never want.

Quality is more eloquent than quantity, and the satisfaction experienced through the recognition of excellence and fineness is far greater and more persuasive than that felt in any situation which does not involve these qualities.

We heartily recommend every progressive process engraver to ask for a copy of this exceedingly useful booklet.

*The Language of Paper, by Frank Alvah Parsons, issued by the Strathmore Paper Company, Miltineague, Mass., U.S.A.

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JUNE,
1918.

THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

Overhead or Burden.

The Experiences of an American Process Engraver.

OVERHEAD or burden is all non-chargeable expense; i.e., cost of all labour that cannot be charged against any particular job, cost of supervision, rent, rates, taxes, interest on investment, depreciation and, in fact, all charges that are neither productive labour applied to a particular job, nor material.

Carefully analysing the time of the productive workman that can be charged against particular jobs, the writer has found that the non-chargeable time varies from 53 per cent. in the case of the boy, to 5 per cent. in the case of a finisher; taking the whole force, different months have varied from 15 per cent. to 30 per cent. and average around 20 per cent. This 20 per cent. is not 20 per cent. of the wages paid, but may be more or less, according to whether the highly paid or lesser paid men have been unemployed or employed in miscellaneous work that cannot be charged against any particular job.

This overhead can be distributed as a percentage of total labour cost or may be distributed according to the productive hours worked, and this latter plan seems fairest because the cheapest workmen require even more supervision; whereas, by the other method any work performed

by cheap labour gets off with too light a burden; any work done by highly paid labour is charged with too much burden.

Distributed as suggested, the overhead in the small engraving plant operated by the writer has never been less than 50 cents per chargeable hour. It averages around 65 cents, and in the case of a bad month, like January last, when the shop had to be closed on account of the holiday and the fuel order, the overhead jumped to 98 cents for every chargeable hour. Surprising, is it not?

The overhead is easily calculated if time cards are kept, so that the non-chargeable time of every workman is known and the value of this can then be added to the other non-chargeable expenses mentioned above. This amount, divided by the productive hours, gives the overhead or burden that is actually paid out for every hour that can be directly charged against any job.

Any engraver taking the slight trouble to work out his overhead in this way will find it highly educational and make him appreciate more than ever the necessity of adhering to the standard rates or higher, and also induce him to keep watch for opportunities to reduce the burden.

Hints for the Dark Room.

LABELS.—An ordinary gummed label soon comes off in the frequently damp atmosphere of the dark-room. Sized and varnished it will last as long as the bottle, practically. The writer has had such labels in use for years in the acid-laden atmosphere of a chemical laboratory without their showing signs of leaving their supports. Use a thin paper, make the bottle dry, and rub the gummed and moistened label down. Then apply a coating of size (1 part of glue in 10 parts of hot water), and, when quite dry, varnish with an "oak" or "church," i.e., a varnish containing linseed oil. Spirituous varnishes (as used for negatives) do not last so well.

For attaching the labels a mixture of glue and gum is better than gum alone. Here is a good formula which is easily made up: Soak 1 part of the best glue in water until thoroughly swollen, add a little sugar candy, 1 part of gum arabic, and 6 parts of water. Boil with constant stirring over a spirit lamp until the whole gets thin. The moisture does not keep; coat sheets of paper with it, let dry and cut up into convenient sizes.

GROUND-GLASS LABELS.—One of the best methods of labelling is to dispense altogether with paper labels, and instead to grind a patch on the bottle with emery powder. The formula can be written on the ground portion with lead pencil. The ground patch is made in a few minutes with a piece of moistened emery cloth, aided by a little emery powder. The writing is removed without any difficulty by rubbing with a piece of hard rubber. It does not wear away or become illegible in use. A coat of varnish can be applied to the patch and the writing thus made

quite permanent. But the convenience of the method lies in always having the label at hand (as it were) without having to look around for paper or gum. Large bottles of stock solutions should be labelled in big, bold letters, HYPO, ALUM, etc., in Brunswick black or other good varnished paint. A solution of ordinary sealing wax in methylated spirit is as good as anything. Grind the wax, first alone and afterward with the solvent, before applying.

CLEANING BOTTLES.—I could easily fill pages with directions for cleaning bottles which have contained this or that chemical. But it does not pay to spend time over such business. If water does not clean the bottle right away, try shaking a little hydrochloric acid in it; if this is of no use, shake up (still with the hydrochloric acid) with shot, or small coal, or coarse sand or something which will scrape the impurity off the side. If this fails, cast the bottle aside as useless.

SOLUTIONS THAT DO NOT KEEP.—The permanence or otherwise of a solution is a matter of conditions—generally whether the air gets access to the liquid or not. Two methods of preserving solution from the action of the air are worth bearing in mind. The first is to store the solution in a lot of small bottles, say 4-ounce capacity, each filled to the lip and well corked. The second is to store the solution in a bottle with a cork at the bottom such as is described above, and to pour a layer of "heavy" paraffin oil on the top of the solution. The oil, although designated heavy, is lighter than water, has no action on any ordinary solution, and effectually excludes the air.

BOTTLES FOR DEVELOPER.—The bottles

for one's set of solutions, e.g., pyro, bromide and alkali, may very fitly be selected of distinctly different size and shape, so that they cannot be mistaken.

ACCURACY IN WEIGHING.—There is such a thing as needless accuracy. It is no good weighing chemicals more accurately than the solutions containing them can be measured. From tests which I got some careful photographic friends to do in conjunction with personal tests some time ago, I found that in broad daylight their measurements of solutions (1 or 2 ounces) varied about 1 per cent. (1 in 100) on either side of the truth, i.e., total error of 2 per cent. Hence, weights can be safely just as inaccurate, but not more so. This means that an "ounce" of, say, potassium bromide may be 4.37 ($\frac{17}{100}$ ounce) more or less than an ounce without "cutting any figure." In other words, it may be 441.8 or 433.1 grains. This means that the trouble of finally adjusting the weight to $\frac{1}{2}$ grain is simply wasted. When small quantities, 20 grains and less, are being weighed the greatest accuracy must be observed.

SEEKS ANOTHER SPHERE.

MR. HENRY BLAICKLEY, who in addition to his other business experience has for the past sixteen years been associated with the firm of Messrs. Vaus & Crompton, Ltd., as representative and traveller, and who has a wide knowledge of and acquaintance with Provincial and Scotch ground, as well as London, informs us that he has severed his connection with the above firm as from May 31st, and is open to make new arrangements where a fairly free hand and liberal terms can be offered.

Communications can be addressed to him at 12, Aubert Park, Highbury, N.5.

Printed Smiles.

IF there is a modern development in business that is emphasised to-day, it is the importance of courtesy in all transactions. The broad-gauged merchant who first stated as his business policy that "the customer is always right" was laughed at at first, but to-day he has thousands of followers who recognise the sound practical wisdom of his attitude. The customer must be satisfied in every transaction. The old policy of "let the buyer beware" is as obsolete as a last year's calendar. Still the skilful merchant can have his own way, can still control the situation when occasion calls for an adjustment of any kind, if he will learn just one thing—to keep his good nature. There are very few bad situations which can't be made better by the smile treatment properly applied. There are very few people who won't respond to it, and many difficulties that can be cured by it. It has to be the right kind of smile, and it has to be properly applied—for a situation that may be smoothed out by a cheerful smile may easily be made hopeless by a grin. And this same method, which is so efficacious in a personal interview, can be used to similar good advantage in written and printed messages. Each letter or circular that goes out ought to reflect that attitude of the house. Perhaps a situation develops in business that makes a message to your customers necessary. It may have to do with increased price, delayed deliveries, or other news that will not be welcomed. Even here there is a chance to cover disagreeable news so skilfully, so tactfully, that it will leave a distinctly favourable impression toward the house.

Printing Art.

Process Men at the War.

CORPL. J. BURFORD LEONARD.

Honour for one of the staff of Messrs. W. & G. Baird, of Belfast.

THIS month we have the pleasure of giving the portrait of a member of the staff of one of our Irish photo-engraving houses.

Corporal J. Burford Leonard was employed in the well-known house of W. & G. Baird & Co., Ltd., of Belfast—where he did excellent work both as a commercial and press photographer, until the commencement of the war.

He had spent the previous years of his life in making himself proficient as a process worker, but when an appeal for volunteers was made immediately after the outbreak of the war, he felt the call of duty so forcibly that he immediately joined the Young Citizen Volunteers (14th Battalion "R.I. Rifles" Ulster Division), and so placed himself at the disposal of the army authorities.

After undergoing a period of training he was sent to France, where he displayed

the same earnestness in his military duties as had characterised his work at home. His energy and devotion to duty attracted the attention of his superiors,

with the result that he has recently been awarded the medal for meritorious service—a distinction given only to those who show such intelligence combined with enthusiasm in their work as marks them out to be leaders among their fellow workers.

We congratulate Corporal Leonard on his coveted honour, and wish for him further success and a safe return to the work of his choice, when the victory is won and his military duties have come to an end.



CORPL. J. BURFORD LEONARD.

We propose to continue to give portraits of either employers or employees of Process Engraving Houses who have gained distinction in the war, and shall be pleased to receive particulars and photos from any houses interested.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. F. H. VAUS,
Messrs. Vaus & Crompton, Ltd.,
Kirby Street, London, E.C. 1.

Treasurer—

MR. EDWARD W. HUNTER,
André Sleight & Anglo Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.

Telephone: 5596 Bank.

Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an Open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

DURING the month the Council has been as busy as usual in its endeavour to safeguard the interests of the trade, in order that the members of the Federation may "carry on" under the best conditions possible considering the times in which we live.

It may be interesting to the members to have the opportunity of considering a few figures placed before a recent meeting of the Council by the Secretary. They will give some idea of the amount of work done by the officers, Council, and staff, and help the trade to a correct appreciation of the enormous amount of work the Federation scheme has entailed, all of which has been done without fee or reward so far as the Council is concerned, though of course the secretarial and clerical work must of necessity be paid for.

During the past Federation year there were held no less than forty meetings of the full Council, each meeting lasting from three to five hours, and being attended by the Secretary and a shorthand clerk. The average attendance of members at these meetings was nine.

Beside the great number of matters affecting the trade as a whole that had to be dealt with, the Council has considered and drafted replies to special communications from 367 correspondents who had raised queries respecting various matters.

The total number of letters written on general Federation matters during the year was 1595, to which must be added 1,450 letters re copper and zinc.

THE PROCESS MONTHLY.

There were also thirty-nine circular letters drawn up, and posted to each member of the Federation during the year, making a total of about 4,000 copies of such letters.

The work of the Metal Committee has of course been the most arduous, for it not only had to formulate its scheme, procure the necessary information by which it could prepare such figures as would give it a sound basis on which to ration the metal that came to hand, and prepare the books of account it was needful to keep, but at the same time had to carry on negotiations with the Government Departments.

This Committee met fourteen times during the last nine months, beside attending several interviews, and during that period issued 1,053 permits for copper, and 1,087 for zinc, every one of which had to be carefully considered before it was passed.

Beside the above there has been held somewhere about fifty other sub-committee meetings dealing with matters that arose from time to time, such as propaganda work, the apprentice question, price list revision, photogravure, general meeting, etc., etc.

The foregoing will give some general idea of the volume of work that passes through the Federation Offices during the course of a year, and will in all probability be considered as good value for the subscription paid.

Since our last report of the Council's doings there have been some interesting matters dealt with. One of the chief was the endeavour to make such arrangements so that the supply of copper might be maintained even if it was found to be impossible to procure it from America.

This matter has been engaging the attention of several members of the Council

for a considerable time, and many experiments have been made with a view to testing the possibility of creating a source of supply that would at any rate tide us over the difficult period immediately in front of us.

The experiments so far, though on a small scale, have been very successful, but whether the larger demand could be satisfactorily met cannot be definitely stated; the trade, however, may rest perfectly content that the Council will make every effort to secure an increase on the present supplies, which for so long a time kept the trade in a very anxious condition. All the same, caution is necessary, so further experiments are being made, and should success attend them the result will be intimated to the members in due course. There is no doubt that the copper can be produced here, but the questions of price, density, finish, etc., have to be thoroughly considered before any final pronouncement can be made.

As soon as it is possible to be assured that suitable supplies can be produced here, even though the quantity may be comparatively small, communications will be made to the trade.

By far the most important meeting was that at which the Council met the representatives of the Men's Society to discuss the increase of wages as asked for by the men's representatives.

The Secretary of the Society put his case exceedingly well, and while he was most insistent upon the necessity for the increase, he put forward his arguments with moderation and tact; he evidently felt that the question was a serious one as well for the employers as the men, and while he sympathised with the difficulties of the employers he naively reminded us

that did not help his members to pay the increased price demanded for the necessities of everyday existence. He moreover pointed out that the increase had been granted by every other branch of the graphic arts, and there could be no reason why the men employed in process-engraving houses should not fare as well as their brethren in kindred trades.

His arguments were backed up by other members of the deputation, who asserted that the increase was an absolute necessity, otherwise they would not have put forward the request, but as the necessity existed they must press the matter and ask the Council to grant their request, even though it might be very difficult for the trade to again raise prices to meet the extra outgo.

A full discussion ensued, for it was very evident that all present felt they were confronted with a situation that would need all the wisdom of the united meeting to solve, consequently it took a long time to consider every phase of the question, and the joint conversations had many interesting points in them. After two or three retirements so that each side might review the situation from its own standpoint, it was unanimously resolved that the bonus hitherto existing should in future be considered as additional wages, and that as from the first pay day in May the men should have a further increase of 6/6 per week, and so by a compromise such as is so dear to the heart of the Englishman each side felt they had come to the best arrangement possible considering the difficulties surrounding the situation.

Of course, this decision raised for the Council another query, that is how shall the trade get back this heavy increase in the pay roll, for it was a very heavy increase in the wages bill. Various sug-

gestions were put forward, and many careful calculations made to find out what increase in price of our product was necessary in order to maintain the trade in at least an equal position to that obtaining before this increase in wages took place, and it was eventually decided that a further 12½ per cent. was needful, thus turning the existing 12½ per cent. into 25 per cent. The trade was therefore circularised to the effect that on and after May 1st all prices would be subject to 25 per cent. increase instead of 12½ per cent. as hitherto.

It was hardly to be supposed that this decision of the Council would meet with universal approval, for it was known that some members of the trade considered that nothing less than 33 1/3 per cent. would be of use for the purpose intended, but the Council had to give impartial consideration to all suggestions put forward, and having considered them in the light of its own experiences came to the decision named as in its judgment the most reasonable and practicable at the present moment.

In accordance with the instruction of the Annual Meeting, the Council is in correspondence with the Newspaper Owners' Associations of the country with a view to securing their co-operation. It is, however, too early to make any definite statement as to the outcome of the negotiations, suffice it to say that the trade may rest content that the matter is having careful consideration and will not be lost sight of.

A Sub-Committee was appointed to endeavour to come to an arrangement with the Platen Machine Minders' Society such as would satisfy their request for more intimate association between themselves and the Federation.

THE PROCESS MONTHLY.

The outcome of this committee's work is that the Federation propose to extend the scope of the agreement with the Process Workers' Society so that it will in future apply equally to the members of the Platen Printers' Society who are employed in London process houses. There being so few of their members in the country houses it was felt to be unwise to extend the operation of the agreement beyond the London area.

One whole meeting was given up to Mr. Arthur Cox, who had a matter to put before the Council that he considered of vital interest to the trade as a whole.

Those who know Mr. Cox's keenness in the matter of costing, and his long endeavours to impress upon the trade the necessity of studying the scientific side of the office and managerial work, will hardly be surprised to know that when he assures the Council he has a matter of interest to lay before it, it is felt right that he should have full opportunity to place such facts and figures, together with his view of their bearing upon the problems of the trade, before it.

At present all that can be said is that the address was carefully and thoughtfully prepared, and was as carefully and thoughtfully listened to by those present, some of whom felt there were some principles underlying the questions propounded that deserved further and most careful consideration.

In order to give the Council the necessary material for such further consideration a small Committee has been formed in order to summarise the scheme and collect sufficient data upon which it can form a mature judgment. When this is done the Council will decide whether in its opinion the proposal is of sufficient value to be proceeded with.

During the month two more applications for membership have been received, and accepted, thus further reducing the small number of houses outside the Federation.

Further correspondence has ensued with the Ministry of Labour as to disabled soldiers and sailors who are desirous of coming into the process trade, and so far it would appear that our view point has made some impression upon the officials, and it is hoped that in the near future this matter will be handled by process men rather than by the printer.

There has been a great amount of correspondence upon various matters of interest to the particular houses concerned, though it is not of general interest to the trade. Still, whether such questions affect the trade as a whole or a single house, they receive the same careful attention.

The minutes of the Northern Counties Association were submitted and duly considered, and though the Council could not comply with some of the suggestions put forward, it was felt that such associations, if formed, in various centres of the county, would help create a local interest that would be of great value to the houses concerned, and incidentally to the trade as a whole.

INSTITUTE OF PRINTERS AND KINDRED TRADES.—At the last Council Meeting sixteen well-known principals and representatives of the crafts were elected members. A highly-interesting lecture on "Parliament from the Press Gallery," by Mr. Spencer Leigh Hughes, M.P. (Sub Rosa) followed, and was heartily enjoyed by a large and enthusiastic audience—so much so that it is hoped a further lecture by the same gentleman may be arranged in the near future.

Effective Machinery for Photo-Engravers and others.

A Veritable Vade Mecum for Process Engravers.

SELDOM has the character or personality of a firm been so satisfactorily expressed in its printed matter as is that of John Royle & Sons (of Paterson, N.J.), by their recently-issued catalogue No. 300. Outwardly modest in appearance and dimensions, inwardly it is a veritable treasure-house of beautiful half-tone engravings, admirable typography, and valuable information. In its 296 printed pages are more than 200 illustrations, all printed on the highest quality of supercoated stock, and in themselves of unusual interest to printers and engravers. No expense was spared to make this catalogue the best possible for its purpose, and the result is worthy of the aim.

Those familiar with the Royle organisation will recognise, at every turn, the high ideals, indomitable energy, and unusual talents of Vernon Royle—the President and Manager—who not only designs and builds superior machines, but is equally clever at illustrating and describing them. Many of the photographs, especially those of historical interest, were taken by him personally; and all the work has been performed under his direct supervision, the whole representing some fifteen years of planning and preparation.

In this catalogue are shown for the first time, a number of machines invented and developed by Mr. Royle within recent years, to meet requests from prominent engraving concerns, and now offered to the trade on a commercial basis. These include the Ellipsograph, the Micro-Edger, the Registering-Squaring Machine, and

the Motor-Driven Tub Rocker; all of which have been approved by their original purchasers, and are of demonstrated value to photo-engravers.

For all machines and accessories there are comprehensive illustrations, descriptions, and specifications; while belting, cutters, saw blades, etc., are listed in such manner that they can be selected rapidly and accurately. For the more widely-used Royle machines such as routers, bevellers, saw-tables, etc., there are detailed illustrations of parts commonly required for replacements or repairs so that they may be ordered by name and number without need for preliminary correspondence.

Not all the pages have been devoted to machines and accessories, however, the table of contents showing an introductory section containing "A Glance Backward," "Facts about the Business," and "Information for Buyers"; while at the rear of the catalogue, under the head of "Generalities," is an even more instructive list of articles on subjects of general interest. The latter includes information on "Mounting the Plate Square," "The American Point System," "Belting and Pulleys," "Wires and Wiring," and a breezy article entitled "Our Diversified Line," which illustrates and explains, in semi-humorous style, a number of important Royle-made machines for the textile and rubber-working industries. There is a very complete index; and for the benefit of foreign buyers, a modern five-letter cable code has been devised which provides special symbols for almost every machine and accessory.

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At the extreme back of the book, where it might easily be overlooked in a hasty glancing through of the catalogue, is a beautiful half-tone reproduction of medals that have been awarded to John Royle & Sons at various important industrial expositions held throughout the world during the past thirty-five years. One feels, after having studied the many ingenious machines described in the preceding pages, that these honours have been well-deserved; and that there was an especial fitness in the action of the Committee at San Francisco in 1915, that awarded a gold medal to Vernon Royle personally for his inventions and mechanical achievements.

Photo-engravers, electrotypers, printers, stamp-makers, die-cutters, etc., should write at once for a copy of this Royle catalogue—No. 300—and we are advised that so far as possible all requests will be honoured. Preference will be given to those who write upon the letter-head of their firm, stating the capacity in which they are connected therewith.

The Paper Restriction Order.

COMPLEMENTARY to the new paper regulations, there is published a Paper Restriction Order, which after specifying the restrictions contained in the regulations, clause 4 reads: "Where a person requires to be supplied with any of the goods referred to in paragraphs 1 and 2 of this Order (paper and boards, etc.) he shall give reasonable notice of his requirements to the importer, manufacturers or dealer from whom he is entitled to claim supplies. Such notice shall refer to his requirements during each

four-monthly period ending June 30th and October 30th, 1918, and February 28th, 1919. In default of such notice he shall not be entitled to receive such supplies. Process engravers will do well to give careful attention to this matter so that they may secure what paper they require for proofing, etc.

Photographic Printing Processes.

DURING the next few weeks, Mr. F. G. Curson will deliver a series of lectures at the College of Technology, Manchester, under the title at the head of this notice. Mr. Curson proposes to deal with some interesting and economical printing processes, as well as with recent developments in photographic printing, and will demonstrate to his hearers the beauty as well as the simplicity of the processes referred to.

Mr. Curson has charge of the Photographic Department of the "Daily Sketch," he is also president of the Manchester Amateur Photographic Society and is well known in Manchester circles, and is looked upon as an authority on photographic subjects.

We commend this series of lectures to all interested in photography and who reside within reach of the lecture room.

Continued from page 91.

much valuable service in that sphere. It will be interesting to follow the future of such an enthusiastic member of the process trade, as we have no doubt there is a successful niche somewhere in the world for him.

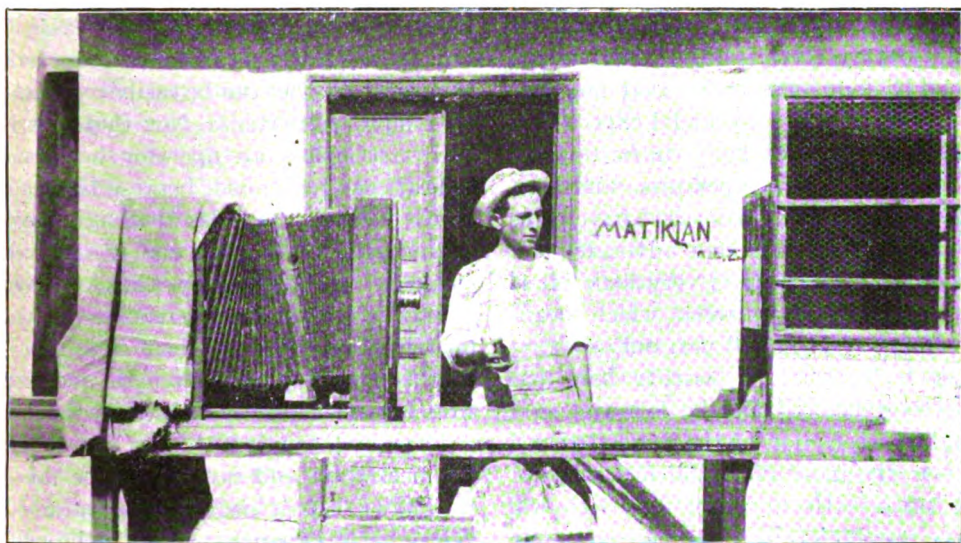
Process Engraving in Smyrna.

How true it is that pictures have an unfailing fascination for peoples of every race and language is illustrated by the fact that process-engraving has found its way into the most remote parts of the world.

One would hardly go to Smyrna for the purpose of securing good process blocks. Nevertheless, we are able, through the courtesy of the President of the Federa

career before him in spite of the fact that he could not procure electric light with which to do the work.

There was, however, one drawback to his success in that eastern city. He was an Armenian, and when the persecution again commenced he was compelled to dismantle his plant and flee for his life, eventually finding himself in Cairo, when, with that determination that had hitherto



tion, to give an illustration of a process-engraver's establishment in that seaport.

The proprietor, a young man now in the British Army, established his plant in that far eastern city, and found a demand sufficient to keep himself and several assistants continuously at work.

We understand he has turned out some exceedingly creditable productions, in fact those who are able to judge speak highly of the quality of his work. Consequently there seemed to be a successful

enabled him to conquer difficulties, he once more set up a plant and commenced work as a process-engraver, and successfully catered for the newspapers with work that would have been creditable to many a more pretentious plant—even here using the sun in place of electricity.

The proprietor is now actively engaged in the service of the country of his adoption as interpreter, and is doing

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The Silver Bath.

By A. C. Austin.

AMONG workmen in general it may be safely said that the silver bath is the least understood of all mediums with which the process photographer has to work.

The majority have learned to prepare and to condition a bath in a certain particular manner, and as there are a number of ways in which baths may be prepared or rectified, there is almost endless controversy as to the best way. I don't believe there is any authority that would back up an assertion that one particular way is the best, and I expect that whatever is offered here will be severely criticised by some operators, and yet, through years of experience, I have come to believe in the methods advocated, for the reason that there is very little interruption in the day's work, which means every day, year in and year out.

Much of what is written here has been said before, but the following is a detailed description of the method that I believe the most successful in caring for the silver bath, and any repetition will serve to impress the ideas more firmly on the mind.

Collodion and silver baths—for the two must work in absolute harmony if the best results are to be obtained—may be used with varying degrees of iodization and various strengths, but it is imperative that the right amount of iodides are used in the collodion and no excess; otherwise the bath will become overloaded and the operator will have granular negatives full of pinholes.

It is accepted generally that a silver bath containing forty grains of silver to

the ounce of water is the best for half-tone negatives; and that a well-balanced collodion should have about four and a half grains of salts to the ounce of solution; rarely any excess of this amount, although with some salts a slight increase is permissible.

One should bear in mind that there is an exact ratio between salts and silver which accords with the atomic weight, and if reference is made to a proper table of atomic weights, the amount of one salt as against another can be easily computed by simple proportion. Not that this is necessary unless an operator has some radical change in mind, because there are many excellent formulas that have been scientifically worked out and if a proven collodion works properly with a given strength of bath, it only remains for the operator to keep his bath in condition—that is, up to proper strength and free from organic matter and excessive iodides.

In making a new bath it is best to use distilled water and care should be taken to know that it *is* distilled water. I remember an experience once that brought trouble that could not be easily located until it was found that the so-called distilled water, bought and paid for, was water obtained from the condensed steam of an exhaust pipe in a factory; this water was contaminated with organic matter that had accumulated in the exhaust pipe, and with particles of iron rust.

One sure way of having pure distilled water is to have a still of your own. A small one sufficient for bath supply even for a dozen operators can be obtained for very little expenditure, and cost of opera-

tion is relatively very small. If distilled water is purchased it is safest, anyway, to add a part of the silver to the needed amount of water and set the bottle in the sunlight for several days before final strengthening. The sun's rays will cause any impurities to deposit at the bottom of the bottle, and this deposit can be filtered out.

Make this new bath forty grains strong by argentometer test. Forty grains in practice, as was said before, has been found to be the best, with properly iodized and well-balanced collodion, but one of the great troubles that creep into everyday practice is the absence of consideration for the fact that each plate dipped into this forty grain bath removes a portion of the silver. This loss is not appreciable at first. Many days may elapse before the operator notices that a little more time is required in exposing, and by that time probably there is more or less organic matter present, that naturally comes from the edges of the albuminised plates that have been dipped and from particles of collodion film that have been broken off in the handling of the plates. When this condition is apparent, the operator usually considers it is time to "boil down" his bath. And he boils it generally to the limit; perhaps he even fuses the silver; he certainly does a lot of unnecessary things at a cost of time and money, because he certainly loses a part of the silver every time he "monkeys" with the bath in this way.

I don't believe in fusing the silver; nor in excessive or too frequent boiling. With care and a proper system, boiling only need be a comparatively infrequent operation; and then not actual boiling which *does* carry with it a loss of silver thrown off by the ebullition of the water and carried off

in the steam, but simple heating to a point slightly above the boiling point of alcohol, say about 180° Fahr. Alcohol boils at 173° Fahr., and it is the accumulated alcohol from the collodionised plates, during the many dippings, that is to be thrown off. Hard boiling at 212° Fahr. does not hasten the departure of the alcohol, but it does reduce the bulk of the bath, necessitating the after addition of more water. Far better, in my opinion, to use a more gentle heat and thus conserve the silver.

Use the following system and see if you won't agree that there is less trouble and greater satisfaction than is usually the case with the average worker.

Make the new bath forty grains strong, using an argentometer that you know to be correct. Acidify with guaranteed C.P. nitric acid and *do not* overdo this acidification. An excess of acid in proportion to the strength of the bath will tend to a blurring of the image and to fog; it also decreases the sensitiveness and increases the tendency to stain. Have just enough acid to permit clean, clear negatives, but no more.

After having used a bath for a day or two and then testing, it will be found less than forty grains to the ounce, the exact reduction depending, of course, on the number of plates that have been dipped. To keep the bath to full strength is very desirable. Better, therefore, to have an extra strong solution of silver—at least eighty grains to the ounce—and after each day's work add to the normal bath a very little of the extra-strong silver solution. One can soon determine about how much will be necessary to compensate for the loss through dipping and readily supply the deficiency. If this plan is followed, the bath will work uniformly until it becomes

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supersaturated with alcohol, when it should be removed and the alcohol evaporated. When the alcohol has been removed and the bath cooled off, pour the bath into a large, clear glass bottle and add enough of a 20-per-cent. permanganate of potash solution to turn the whole to a light pink colour. A test with litmus paper should show slight alkalinity.

Now set the bottle in the sun and let it stay there for a week if possible. All the organic matter will deposit at the bottom of the bottle and then the bath is to be carefully filtered and acidified with nitric acid, when it is again ready and will be found in excellent working condition. There may be times when it will be necessary to remove an excess of iodides from the bath, in which case the bath should be poured into about one-fourth its bulk of distilled water, *after* the alcohol has been evaporated. Then add the permanganate solution and place in the sun, strengthening to the forty-grain standard to be done after the filtration and just before acidifying.

I might go on and detail other methods that admit of good results, but the foregoing is reliable and therefore satisfactory. I don't believe in ammonia for neutralising, nor do I believe in fusing because of the cost in lost silver and because fusing promotes solarisation and "oyster shells." I know operators that do both; and others that neutralise with soda or with cyanide. There are innumerable methods and various stunts, but they are all troublesome and more or less costly.

The less you do to a bath, the better off you are.

It is reported that the Germans have carried off the printing presses, linotypes, and the other machinery of the Belgian daily paper *Le Patriote*, and sold them to German publishers.

About that Competitor.

By Clifton Sanford Wady.



THE "other fellow" 'cross the street
Has no more hands and no more feet
Than you have; and he can't hurt you
If "to yourself you will be true."

You have no reason to complain
If his good efforts bring him gain.
The world of sunshine's full of gold,
And has been since it first was rolled.

And some of it belongs to Jim,
So don't begrudge the stuff to him.
If he's industrious and fair
You must admit he earns a share.

Be sure to smile when next you meet;
Don't hesitate to cross the street
And ask him to the midday lunch
Where he can meet the printer-bunch.

Wish well to Jim, or your's the loss.
This is a law of God, old hoss!
We printers are a Brother Band
Of one intent where'er we stand.

So let us help each other more,
Not nurse the grouch that makes us sore.
"Man wants but little here below"—
Each earns a living—ain't that so?

It Costs Money.

IT costs money to make money. It costs money to conduct your business—to do every single operation in your plant. You can't make money by repeatedly losing it.

It costs money for rent.

It costs money for wages.

It costs money to deliver goods.

It costs money for postage.

It costs money for printed matter used in your business.

It costs money for advertising.

It costs money for insurance.

It costs money for bad debts.

It costs money to have periods of no work.

It costs money to have periods of less than full production.

It costs money to pay interest.

It costs money for taxes.

It costs money for water.

It costs money for light.

It costs money for heat.

It costs money for power.

It costs money to pay yourself a salary.

It costs money for materials.

It costs money for petty charges.

It costs money to neglect to take all cash discounts.

It costs money to have money invested in plant.

It costs money to have money invested in fixtures.

It costs money to have plant and fixtures wear out.

It costs money to waste time.

It costs money to waste materials.

It costs money to collect money.

It costs money to replace breakage.

It costs money for advice, from lawyers or auditors.

It costs money for charity, donations, subscriptions, etc.

It costs money for telephones and telegraphing.

It costs money to keep your premises clean.

It costs money for your own office supplies.

It costs money to have goods lost, damaged or stolen.

It costs money to send out goods without charging.

It costs money for allowances made to customers.

It costs money for wrapping paper and cord.

It costs money for local or national association dues.

It costs money for cartage, freight and express.

It costs money for repairs and upkeep.

It costs money for mistakes and errors.

It costs money to figure out your costs without taking all the above items into your calculations, and then some, which perhaps have been overlooked.

Typothetae Bulletin.

ANOTHER JOHNSON SUCCESS.

GLYCIN, the manufacture of which at one time was practically confined to Germany, is now a British product, for Messrs. Johnson & Sons have placed upon the market a thoroughly satisfactory brand, which we have tested both for the development of dry plates as well as for bromide prints, and it gives equally valuable results in either case. It works very clean and soft and gives plenty of detail in the shadows without rendering the high lights too hard and glaring.

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THE PRINTING ART SUGGESTION BOOK, issued by the University Press, Cambridge, Massachusetts, is one of the most welcome issues that come from the other side. There is always something good to be found within its covers, and our only surprise is that such a valuable publication does not meet with a much larger sale over here. This, of course, may be accounted for by the absence of any special efforts being made to popularise it in this country. Be that as it may, we very heartily recommend it to every process-engraver and every printer who aspires to keep abreast of all that is best in the trade of to-day.

ETCHINGS, the monthly issue of the house of Gatchell & Manning, of Philadelphia, is as well produced and as useful as ever. We know of nothing that can surpass this well got up and handy monthly in point of interest for the customer of the process engraver, while the specimens of the work of the house are really everything that can be desired. As a friend remarked recently, when a copy was shown him, "The editor must be a born artist, or he could not produce so perfect a piece of work."

HOW TO SELL BUSINESS CORRESPONDENCE PAPER is the title of an imposing folder issued by the American Writing Paper Company, and it is certainly an admirable way of showing the advantage of the various papers they make, a way such as is most likely to impress a customer. It is well got up and will no doubt give the Company a good return for the time, thought and care spent upon it, by the increased business it is sure to bring.

PROOF is an effective example of the designing, engraving and printing as produced by the Gazette Printing Company, Montreal, and so successful was the issue of the first edition that the company felt compelled to reprint and re-issue this first number. The publishers have evidently succeeded in their effort to give out something that should stamp their house as being in the forefront of the race for supremacy so far as quality and service are concerned, and that they have succeeded beyond their expectation is shown by the following extract from the preface to this, the second edition: "It was our intention to try and do a rather difficult thing—produce 'something different'—but we had no idea that we had succeeded to the extent indicated by the letters and verbal comments we have received since the first issue was sent out." Truly the issue is an exceedingly good piece of work, and would do credit to any house that could produce it, and that it has had its effect is evidenced by the statement of the

publishers that it has brought them so much work that it has been quite impossible so far to find time to produce No. 2 of the issue.

BBETTER BUSINESS LETTERS forms the slogan of a collection of well written and instructive articles brought together and sent out in an envelope by the Hampshire Paper Company, who have evidently made a careful study, not only of the matter such letters should contain, but of the material upon which they should be written as well, and it is well worth the effort of any business man who believes in letter writing from an advertising point of view to get a copy of this issue.

The company do not propose to dogmatise in any way as to what should or should not be considered the best kind of copy, etc., for every kind of form letter sent out, but they propose to show from time to time, such specimens as have been found to be successful, together with advice as to which may be considered the best under any given set of conditions. We heartily recommend the issue to all who are interested in such a matter, and have no doubt they will find the study well repay the effort.

THE POCKET BOOK issued by the Art Engraving Company, of Cleveland, Ohio, is as full as ever of good things. Certainly the editor must be thoroughly alive so as to issue from month to month so valuable a booklet, for there is rarely an issue but contains some really good and serviceable matter, and never an issue that may be termed dry. It is always a pleasure to recommend this little but useful monthly.

THE FOUNDATION BLOCKS OF PROFITABLE PRINTING has a very business-like sound to process-engravers, but the contents of the brochure appeals more to the printer than the engraver, for it goes on to describe the system of building up foundations for electros, stereotypes, etc., on the Warnoch Diagonal Block System. There can be no doubt that the company have produced a most elegant piece of work, not that it is showy, but it is as near perfection as a piece of printing as we are ever likely to see for this kind of literature. The illustrations, the paper, the printing, and not least, the editing, have all been very carefully attended to, and the production may be looked upon as showing how such a booklet should be produced. Process-engravers, using power presses would do well to procure a copy of this booklet, and study the subjects, for an installation of the same on their proving presses would undoubtedly give them the very best results possible.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

The Industrial Reconstruction Council. **MANIFESTO.**

Capital and Labour, and the Government.

CO-OPERATION between capital and labour is undoubtedly the most urgent industrial question of the day, and many agencies are at work with a view to the establishment of better relations between these two great forces of industry.

An exceptional opportunity now occurs to take a practical step in this direction.

For the duration of the war the Government is directly interested in every branch of trade and industry, and each department of State is in constant touch with manufacturers, trade committees and associations of all kinds.

The practice of different departments varies considerably. Some set up *ad hoc* committees for their own purposes, others consult leading experts, others again have appointed joint committees of employers and employed.

In our opinion these innumerable connections between the Government and the trades give an opening which may never occur again to establish the principle of co-operation between labour and capital upon a sure and sound foundation.

Our suggestion is that the Government should adopt the uniform practice in all industrial and commercial matters of consulting only joint bodies representative of both employers and workpeople's organisations.

In this very simple way the Government has the power to bring about an active co-operation between labour and capital such as many interested parties have desired for some time past.

In our view no industrial or commercial question ought to interest the Government unless it also interests both capital and labour. The union between capital and labour in the discussion of any matter which arose would materially strengthen the position of a trade against unnecessary restrictions, and on the other hand any orders made by the Government on the joint advice of both parties would be more likely to find general acceptance.

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Illustrations might be multiplied indefinitely. There must be many hundreds of trade committees in negotiation with different Government departments at the moment, and each case represents an ideal opportunity for practical co-operation between employers and employed. The effect of such a union on these committees should be to spread a different spirit throughout the industrial world.

The opposition to our proposal will probably come chiefly from employers who have not grasped the full significance of the new spirit in industry. As a matter of fact, employers no less than employed have a great deal to gain from such an arrangement. Their position in relation to the Government would be immensely strengthened by the co-operation of labour in matters which many of them have hitherto regarded as outside the scope of joint action.

The opportunity for the course which we suggest will pass with the war, as the relations between the Government and trade are then expected to become less intimate. We therefore press for the immediate acceptance of the following principle :

That any commercial or industrial matter ought not to interest the Government unless it interests both labour and capital ;

and the consequent adoption of the following policy :

That the Government will undertake to obtain and, wherever possible, accept advice on these matters from bodies equally representative of both labour and capital.

The foregoing manifesto is signed by the whole of the members of the Council, but we have ventured to omit the names in order to save space.

We have peculiar pleasure in very heartily urging careful consideration of this manifesto by every employing process-engraver as well as by the leaders of the Men's Society, for in our judgment it is in some such scheme as that outlined herein that the salvation of the manufacturing business of the country after the war will lie.

There is a very deep truth in the statement made at our Annual Meeting by Mr. Benn, viz., that at present there is no representative body embracing both employers and employees to which the Government can turn for advice in times of need, but the formation of these joint Industrial Councils will provide such a body, and we believe that the Government officials will make good use of them

once they are established.

The future relation between capital and labour must deeply concern everybody who has invested savings in commercial enterprise. It therefore behoves every investor as well as every employer to carefully consider in what way those relations will affect his interest in the particular kind of business he may have chosen for his investment.

It may be considered almost certain that these relations will not be the same as they were in pre-war days. That appears to be the general conclusion of those who have made a study of the question. Such being the case, the question arises : In what way will they be different ? It is just this question these Councils will have to study and determine, and so become the guide, philosopher and friend of all in order to ensure that the greatest good to the greatest number shall be the outcome of the altered conditions.

Service and the Commercial Photographer.

By G. D. Crain, jun.

PHOTOGRAPHY is an art, and therefore one is safe in assuming that the photographer of ability must be an artist.

On the other hand, the commercial photographer is dealing with commercial conditions and commercial men, and in order to make good in that field he must adapt himself and his methods to its peculiar and severe requirements.

The business man of to-day is forced by his customers to give service in all that the word implies, and when he goes into the market to buy anything, whether it is a cartload of lumber or half a dozen 7×10 photographs, he likewise is looking for top-notch service; and in many cases quality of the work, not backed up in this way, will not win the appreciation and the price commanded by reasonably good work and service that is beyond criticism.

Now, before going any further, it may be well to stop and consider some of the things suggested by service in connection with commercial photography. What is meant by service, and what must the photographer who is anxious to provide it do, in order to feel that he has done everything that in reason should be asked of him?

First and foremost, service in business demands promptness.

The business man who is buying photographs and is promised them for a certain hour of a certain day, expects to have the photographs at that time or know the reason why. The photographer may have a beautiful set of excuses—his customer would probably refer to them as "alibies"—but they will not pass muster, because

the buyer is not interested in "reasons why," but in getting the work—in getting service.

The work must be done according to instructions. Once having told the camera man what to photograph and how, the customer expects that the pictures will indicate that these instructions have been carried out to the letter. If the photographer has departed from them, even with some show of reason, he is going to have a hard time making good on the matter of service, because the first thing the customer will have looked at is the details which he expected to be developed by reason of his special instructions along this line.

Now, it should be remembered that the average business man is not an expert on photography. That is what makes the situation all the more difficult for the picture man. The concern which is dealing with amateur photographers, handling their developing and printing, has the advantage of being able to meet its customers on its own ground and to explain all the conditions in technical terms. The photographer who is doing portrait work is in a distinctly art field, where the requirements for the best results, from an artistic standpoint, are given precedence over everything else.

But in commercial photography everything that is demanded is results. Excuses are not legal tender, and failure to carry out instructions is an unpardonable sin.

The element of time is all-important. Much commercial work is done with a

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certain time limit in view. This applies, of course, to news pictures more definitely than anything else, but it usually figures in a great many other cases. The customer wants to get pictures of his new line of samples made in time to catch a certain important customer at a certain city where his salesman is working; the lawyer is anxious to have a picture made for use in a case, work in which is being held up awaiting its development; the trade journal is holding an edition for a picture with which to illustrate one of its leading articles, and so on. If you ever realised the value of time, it is when you are making a commercial picture which is to play its part, possibly, in swinging a deal or deciding a case involving thousands of times the value of the plate.

The photographer may explain that there are conditions over which he has no control; that the weather is going to determine his ability to expose his plates under favourable conditions, and that other elements may develop to delay the completion of the work. That being the case, then, he should either have a definite understanding on this score with his customer or he should make a special effort to overcome unfavourable conditions.

It is, of course, true that equipment is being devised constantly with the object of enabling the photographer to disregard natural conditions to a larger extent than formerly, and the commercial worker, most of all, needs these aids, because, as suggested, his customers are less likely to regard as valid excuses for failure to produce the work on time, based on weather conditions.

The point to be borne in mind, however, is that if promises are made, those promises should be carried out if it is humanly possible. It is far better not to make a promise, and then to deliver

the picture at the time desired, than to agree to get the pictures out at a certain time, only to fall down. In one case the customer will be delighted at the appearance of the finished work ahead of the time expected; in the other, he will be disgusted at the failure of the photographer to make good. It goes without saying that the first photographer will establish a reputation for service and the other will lose it.

If there is any doubt about the ability of the concern to deliver photographs at the desired time a qualifying clause should be used, so as to protect the photographer. "We will do the best we can, but we cannot promise them at that time," would save the face of many a worker who, because of some untoward weather or other condition, finds that he must delay delivery of photographs. He wanted to please his customer, and so he promised; result, his own discredit and the displeasure of the buyer.

Another important point is that if the photographer, after agreeing to get the work out at a certain time, finds that he is not going to be able to do so, he should by all means notify the customer and ask for an extension of time.

You have no idea how much better that is, from the standpoint of the photographer, than to wait until the customer, who possibly has been going ahead, counting on the delivery of the work at the agreed hour, calls up only to learn that the pictures have not been finished.

If the photographer, anticipating his inability to complete the work, telephones the buyer and explains the conditions, asking for an extension of time, he will get it willingly nine times out of ten, and the customer will be impressed with the business-like character

of the concern with which he is doing business. Likewise, he will make his own plans accordingly, and his inconvenience, due to the non-delivery of the work, will be minimized. It is the disregard of the photographer for the interests of others, shown by a failure to notify when work is delayed, that "puts him in bad" with customers and makes them register mental vows never to do business with him again.

There is a certain commercial photographer who is conceded by many to be an exceptionally good man, technically speaking. But he is all technic. He regards the conditions of his work and the work itself as much more important than the practical use to which it is put. In other words, the artistic demands of the photograph are paramount with him, and unless he feels that the picture is going to be perfect he will not attempt to produce it. Now, this is all very fine from one stand-point, but from the stand-point of bread and butter it does not work at all. He has disappointed scores of people who have given him orders by not being able to supply the photographs at the time wanted, and the result is that he has never been able to advance beyond the preliminary stage, as far as volume of his work is concerned. He has a lot of artistic satisfaction in everything he does, but commercially speaking he is a failure.

In regard to the matter of carrying out instructions, the important thing is to notify the customer regarding the necessities which have imposed the change upon the photographer. As suggested above, most buyers are reasonable people, and if conditions are explained to them they will usually acquiesce without trouble. The thing that puts the photographer in a bad light is going ahead in

apparent disregard of instructions and doing the work the way it was not to have been done, that hurts. Getting an O.K. on a suggested change is one thing, and postmortems and explanations afterward, when the finished pictures are presented (together with invoices), are others.

Good service, of course, involves handling the office end of the work in a business-like, orderly way. Lots of photographers seem to be so busy with the mechanical details of their work that they are unable to attend to the proper entry of orders and the proper record of delivery of work, receipt of payments, etc. A photographer went into the office of a customer not long ago to solicit business, having nothing definite in view, and was embarrassed at the question of the customer regarding a print ordered several weeks before at a chance meeting on the street.

"I forgot," was all the photographer could say; and certainly this was not a good introduction to a solicitation for more business, for if he was not enough of a business man to remember or write down orders given him there was not much inducement for the customer to place other business in his hands.

There are other little points in connection with the service expected by business men—just as neat and attractive packing of finished work, delivery by messengers or errand boys hired by the photographer, etc.—but the things mentioned are the big features. If the commercial photographer who wants to succeed will give his customers service in those respects he will soon find that he is in demand everywhere, and that his customers are advertising him to their friends.—*The Photographic Journal of America*.

Overworking the Developer.

THE professional has been warned many times not to try to economise by making a solution develop more prints than it was intended to develop. It has been pointed out to him that when a developer becomes too weak to do its work properly, it should be discarded, otherwise washy flat prints of unsatisfactory colour are certain to be produced. Rarely, however, has he been told exactly how much solution should be allowed for a certain number of prints.

The trouble is, there are so many modifying factors that it is impossible to lay down a hard and fast rule. Figures can be of real help only to the worker who is prepared to read them in the light of his own experience. Due allowance must always be made for the fact that post-cards and heavy-weight papers soak up the solution much more rapidly than thinner papers. It should be borne in mind, too, that some printers waste a large proportion of their developers by their habit of snatching out the prints without allowing them to drain. With whole-plate and larger sizes, a substantial amount of developer may be wasted in this way with each print.

Another factor is that low-toned pictures with dark backgrounds will use up the developing agent much quicker than high-keyed, vignetted portraits. The reason is that in the dark pictures there is so much more silver salt to be reduced because so much more has been acted upon by light.

It must be remembered, too, that a developer oxidizes very rapidly when exposed to the air in a shallow dish. For this reason a given quantity of solution

will develop a certain number of prints if they are all put through while the developer is fresh ; but will not develop the same number if they are put through at intervals and development is spread over a whole morning.

Other factors, such as the varying strengths of developing agents and the over- or under-exposing of prints, will suggest themselves to the experienced worker. Therefore, it can only be stated as a rough guide that with Kodak Bromide, Velox and Kodura, used according to the makers' instructions, 30-oz. to 40-oz. of developer should be allowed for every 6 dozen half-plate prints. This, in most cases, will be a fairly generous allowance—in fact, some workers claim to be able to ensure good prints with 20-oz. or even less. The professional who wants to keep all his prints up to a uniform high standard, however, should lean towards the liberal side. Indeed, if he wants to take the fullest advantage of the rich velvety quality of Kodura, he will be well advised to allow the full 40-oz.

After all, the safest plan is for each printer to note very carefully how many prints he can develop in a certain quantity of solution before there is any slowing down in the action of the developer, or any deterioration in the quality of his prints. As soon as either of these signs appears, he may be quite certain that he has exceeded the limit ; and in making his calculations for future working he should leave a liberal margin for safety.—*The Professional Photographer.*

He who cannot smile ought not to keep a shop.—CHINESE PROVERB.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

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The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an Open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

THE month's work of the Council has been much in the same direction as that of previous months, viz., a constant vigilance in watching the interests of the trade and in making such arrangements as shall be beneficial to the whole of the members.

Perhaps the task has not been so onerous as that of previous periods owing to the fact that the quantity of work passing through the various houses has been greatly reduced and the questions arising therefrom have not been so numerous, consequently the work entailed has not been so heavy.

The outstanding features of the month's work have been few, though of importance. One of the questions, viz., the discount to be allowed between one process-engraver and another, has been receiving very careful consideration at several meetings of the Council, it being felt that the question having been raised, should be settled on the best possible lines; and though the decision, which has already been communicated to the members by post, may not commend itself to everyone, it is felt that it has received the assent of the majority, and as we have to bow to the decisions of the majority in things of far greater importance, it goes without saying that this decision will be duly accepted and loyally carried into effect.

While dealing with this question it may be as well to remind members that the arrangements made by which one process engraver will help another do not carry

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any obligation on the part of one house to accept all or any work offered it by another; the arrangement is a purely voluntary one, and conditional upon the house having sufficient staff to enable it to cope with the extra work offered. In no case can any house claim that another shall accept the work offered, nor even can it claim the maximum discount. Every transaction must be subject to the conditions prevailing at the moment and to the willingness of any house to accept such work, and to allow any percentage of discount it chooses up to the maximum.

A great deal of correspondence, etc., has been involved in the question raised with H.M. Stationery Office re contracts, discounts, etc., which correspondence has not yet come to an end, though we have no doubt that it will be perfectly satisfactory and greatly to the benefit of the trade when it is completed.

Further steps have been taken to complete the proposals for the formation of a Joint Industrial Council. A scheme in outline has been before the Council, who have relegated it to a committee for fuller consideration and with instructions to complete it as far as possible and then submit it to the Council for final discussion before passing it on to the officials of the Men's Society for their consideration and views thereon.

Whether such Joint Industrial Council should be established for the process trade seems to be exercising the minds of some of those engaged in the industry; as a consequence this phase of the question will receive very careful consideration when the joint meeting is called for the final decision upon the matter.

A matter of very great importance is receiving most careful attention, viz., that a certain newspaper house has been

supplying process blocks to its customers at less than Federation rates. If conduct such as this were to become general it would have a very detrimental effect upon the interests of the trade. The Council, therefore, has taken very firm action in the matter and is dealing with it in such a way as it considers will be most suitable.

Should any member know of such procedure on the part of other newspaper houses, the Secretary will be pleased to have such information as will put the Council in a position to act with effect.

It is not often that full particulars and details are supplied with complaints, but it must be obvious that without such details that can be proved up to the hilt, it is impossible for the Council to take effective action.

The Annual Meeting directed the Council to proceed to fix the price that should be paid for scrap metal, in order that every house should be working upon a uniform basis. Considerable discussion ensued, showing a very wide diversity of opinion, but in view of the instruction of the Annual Meeting it was felt that the matter must be settled and a price fixed. Eventually a decision was reached by the Council, which decision has been communicated by post to every member.

While discussing this matter another phase of the metal question was considered, viz., the growing difficulty of securing a sufficient quantity of old copper blocks to meet the allowances of new copper supplied, for the arrangement imposed by the Government, viz., that for every ton of new copper supplied, the Federation must return one ton of old copper, still holds good.

For a time there seemed to be a fair supply of old plates available, but recently it has been found that the supply has

considerably diminished, thus entailing a serious situation for the trade, for unless every member returns old copper to a weight equal to his new supplies, it is evident the Federation cannot show the Government Department that the proper quantity has been returned, the consequence resulting from such a position being that the supplies will be reduced or perhaps stopped.

It is therefore very urgently necessary that every member should use his best endeavour to secure such a quantity of old copper as will meet his individual case, otherwise it will be imperative on the part of the Committee to ration the copper to those houses only who are keeping to the arrangement, as it would be eminently unfair to supply copper to those houses who have not returned the required quantity at the expense of those who have.

It is therefore very important that every process engraver makes immediate and continuous effort to collect from his customers all the copper he possibly can and so make his supplies sure during the remaining period of the war.

It was reported that printers and electrotypers are competing for this old metal, though it is not very apparent why they should, but as it is of such vital importance to the process-engraver it is incumbent upon him to educate his customer as to the importance of reserving every bit of old copper that may come into his possession so that he may exchange it for process blocks as may be required, and it would be advisable to further point out that unless he does this he is jeopardising his prospect of securing process blocks at all, for zinc is getting very scarce, and unless he can supply sufficient scrap copper he cannot

have copper blocks, and possibly not even zinc.

The Committee dealing with the question raised by the Platen Printers' Machine Minders' Association has met to consider the question of recognition and has had a joint meeting with representatives of that Society. This Committee has drawn up a scheme which it is felt completely meets all the needs of the situation. This scheme has been submitted to the Council and fully discussed, and submitted to the officials of the Platen Printers' Union as well as to the officials of the Process Workers' Society, and they have been asked to fully consider the same and express their views upon it. If acceptable to all parties the scheme will be embodied in an agreement which will be duly drawn up and signed by all the parties thereto.

In due course the arrangements made will be communicated to the trade and become part of the system under which the various houses will carry on their business, thus forming another link in the chain by which it is hoped the trade will be able to help itself to maintain in after-war days a higher standard than had been possible previously.

The Council are still continuing their enquiries and experimenting in order to see if it is possible to secure a supply of copper suitable for process engraving in this country. So far the success that has attended their efforts has been fairly satisfactory, but it is essential that any scheme should have a thoroughly sound commercial basis. Consequently the progress made has to be carefully weighed to see whether it is satisfactory, not only from an experimental point of view, but also from the business point of view as well.

It will be welcome news to the members

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to know that so far the information obtained points in the direction of success, so that the Council hopes that in the course of time it may be in a position to make a very satisfactory announcement to the trade.

In the process of preparing a reply to some correspondence it was necessary to refer to the printed copy of the rules in order to clearly express a point in dispute, when it was discovered that by some means a printer's error had been made and passed by those preparing the rules. The copyist in writing January it would appear had abbreviated it thus, "Jany.." but the compositors had set it up June. and as stated the proof reader had not noticed it. This makes the rule No. 7 on page 5 read very ridiculous, as a return that has to be prepared on the basis of January figures and should be posted to the Secretary not later than January 15th, is made to read as June 15th, thus rendering the information six months old before it reaches the Secretary; a mistake that is so obvious should not of course present any difficulties, though in all probability some folk may be found who would take advantage of it unless it was properly amended. This will, of course, be done in proper form at the earliest opportunity.

THE EXPERT.

THERE is enough to know about any work there is to do to make the one who does that work an expert in his line.

To be expert means to do the work in hand the very best that it can be done.

There is pride and pleasure, as well as profit, in becoming expert in whatever we do—and there is always room higher up for those who qualify by reaching the limit of efficiency in a given position.—*Typesetting Machine Engineers' Journal.*

Photographs for "Half-Tone."

THE difficulty of getting photographs properly reproduced in half-tone is a source of great worry to the commercial photographer. Lack of contrasts, want of detail and false tone values are the chief causes of trouble. Who is to blame? The wise photographer will always suspect a beam in his own eye before looking for the mote in the eye of the blockmaker or printer. The half-tone process calls for a certain kind of photographic print, if the best result is to be obtained. Clean, sharp work is essential. Most blockmakers prefer glossy prints. These can be made on Solio, Velox or Nikko. Another paper which gives excellent results is Kodura BB. Sepia toned Bromides are not suitable. If prints are toned they should be purple or blue-black.

The Professional Photographer.

Slurring on Platen Presses.

By Eugene St. John.

TROUBLE with slurring is often encountered on platen presses and a quick remedy is anxiously sought.

When running heavy formes, which tax the press, slur is apt to occur if the bulk of the forme is above centre. By turning the chase around so that the heavier part of forme is below centre of platen an improved impression is obtained.

The same trouble is caused by not having upper edge of platen thrown forward enough to give square impression on heavy forme. Some claim impression screws

should not be changed after once set, but this is a delusion. It is only necessary to watch the faces on the nuts and turn each screw the same number or part of faces to keep platen square.

If paper is not flat the grippers, strings and corks can be used to hold it flat at impression, which should stop the slur.

If lower bale is loose, so that tympan moves slightly at impression, thus causing slur, a half-inch-thick cork glued to tympan below gauges and near bale will hold tympan at impression and stop the slur.

The Royal Photographic Society of Great Britain.

THIS Society's Annual Exhibition will be held at the Society's House, as last year, and will be open to the public from October 14th till November 30th, daily from 11 a.m. till 9 p.m., subject to alteration (if necessary) by special announcement.

The last date for receiving entries delivered by carrier will be Friday, September 20th, and for those delivered by hand Saturday, September 21st.

Prints must be mounted but should not be framed, unless they are to be collected and delivered by hand. A flat entrance fee of 2/6 will be charged on all entries, and this sum must accompany the entry form.

Lectures will be delivered on certain evenings in each week during the Exhibition, and a prospectus will be issued later. Prospectuses will be ready and can be had on application about the middle of July.

The New Angle of Vision.

THE story is told how a manufacturer of dyes was once showing a great scientist through his plant. The raw material for the colour was ground in huge iron motors by equally as large iron pestles.

The scientist, who was an old man, complained about the deafening noise the grinding made, but was told that, notwithstanding the fact that the life of the machines was necessarily shortened by it, somehow or other the more noise made during the grinding the better blue dye was produced. And the owner saw no way to reduce the noise without impairing the dyes.

The scientist, however, readily deduced that it wasn't the noise that improved the dye, but rather the iron chipped off by the vehement mixing.

An introduction of iron into the raw material was suggested with a reduction of friction, wear and tear on the machines and at the same time producing the desired high grade blue dye.

And so it goes. How often some rank outsider can casually inspect our business and see the very things that seem hidden because our very familiarity has made us blind to the things of most value to our success.

Very few lawyers try cases in which their own interests are involved. A doctor seldom prescribes for himself. He feels that another doctor can diagnose and prescribe better than himself.

So it is in business. The outsider always has a different and, most commonly, a fresh viewpoint.

Mix Delicate Tints on Glass.

CAREFUL pressmen should have a piece of plate-glass for the mixing of light tints of printing inks. It is well known that glass will not absorb colour like a stone or steel "palette" would, and thus purity and clearness in a light colour are assured if the inks are compounded on a sheet of this material. For the purpose, a piece of plate-glass is best, cut down to a convenient size. If desirable, the glass may be framed in a shallow box of wood, which would protect the fingers from the rough edges, and to a certain extent prevent the glass from breaking. Obviously, the glass is easier to wash up than stone or steel, and when mixing inks upon it the smooth surface offers no resistance to the manipulation of the palette knife.

A Tribute to Business.

By Dr. Frank Crane.

BUSINESS was business. Nowadays it is more. Business is psychology.

It implies a study of human ways and tastes. It means an understanding of crowds. It comprises cultivating public opinion. It includes forecasting public desires.

Business is honesty. It no longer connotes over-reaching, short-changing, cozening, and haggling. It does not take a business liar long these days to stumble over himself.

Business is charity. To furnish a means of honest, self-respecting livelihood to a hundred human beings is doing more real

charity than doling soup to two hundred beggars. More good and more welfare come from providing employment than from relieving panhandlers.

Business is courtesy. It is not obsequiousness. It implies the art of handling people skilfully. It means self-control, self-discipline, good breeding, knowledge of character.

Business is progress. It does not consist in wheedling people to deal with you once, that you may overcharge them; but it consists in treating customers so that they will come back. The pleased customer means cumulative progress.

Business is ethics. The best preaching is by example. The straight business man preaches six days in the week honesty, integrity, fidelity, and economy. He is a moral stimulus to the community.

Business is politics. The right kind of business man pays his taxes, supports civic enterprise, stands for law and order, refuses to pay toll to grafters, and altogether represents the backbone of justice.

Business is telling the truth. There is crooked Big Business, there is shift Little Business, there is Nasty Business, and Shady Business. But there is enough Real Business to furnish life-blood for all these suckers. The main body of Business in this country is sound as a dollar. It is intelligent, fair, and public spirited.

Business is national prosperity. We could get along without any other class of men better than without business men.

Business is national honour. Our reputation abroad is made or unmade by our business men.

Business never meant more than it does to-day. It never needed more men of sterling character. There is room in it for the best brains, skill, and moral worth of the country. —From *Impressions*.

Photo Plano Hocus-Pocus Processes.

WE thought that the day of the process engraver with a special process of his own, or some special secret by which he alone could produce illustrations in high-class style at a nominal cost, was past and gone, but from the following, culled from the "Inland Printer," it appears he is not yet quite dead; perhaps he has left our shores in hope of more easy prey on the other side of the Atlantic. The "Inland Printer" says:

A correspondent writes: "We have been informed that there is a process that is intended to revolutionise the printing industry to the extent that it will supplant photographing, photo-engraving and printing. This information comes to us through one who is selling stock in this organisation, and as several of our friends are interested I take the liberty of writing you and endeavouring to learn something regarding the process that has these features."

Answer.—The Promoter with the invention that is going to revolutionise the photo-engraving industry will always be with us, though he seems to be unusually busy just now. He has taken in the most astute, from Edison down, and it is not surprising as there is so much that is so mysterious about photography, so much of it that is done in the dark, and its possibilities are so many and undeveloped that it is a splendid medium for deception. Even scientists with big reputations were convinced that departed spirits could be photographed. As one of the purposes of this department has been to protect the trade against alleged "revolutionary" schemes, the writer

could fill a book with his experiences and exposures of fake enterprises based on photography. In most cases even the promoters are ignorant of the photo-engraving processes in use, or that have been tried out and passed by. In many cases they are reworking worn-out claims. It is strange that one with a process to revolutionise the printing industry would seek the mountains of North Carolina to sell stock when they are looking for such good things in the printing centre of the world. Still they are caught even in Wall Street. Some time ago a million dollar company was formed in New York to prepare zinc plates for offset printing based on the fact that nitric acid and alum would roughen the surface of a zinc plate. It is well to "be from Missouri" on all of these revolutionary processes until after consultation with some one who knows the state of the art.

✓ *Strange Newspapers.*

By Edwin Tarriss.

ONE of the queerest newspapers in the world is the "Kamloops Wawa," a journal printed in shorthand by a tribe of Indians who live in the interior of British Columbia. It was established through the efforts of a French missionary, Le Jeune by name, who came to the Fraser River district of British Columbia some years ago.

He found the natives superstitious, ignorant, and unable to write their language. He soon learned the Indian vocabulary, and then began to write it by means of shorthand signs which

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represented all the sounds the Indians use in pronouncing the words.

Le Jeune first explained his system to an intelligent Indian lad who lived in the central village. The boy took to it intuitively. In a few months he had thoroughly learned the art of writing his language in shorthand, and began to teach his friends. The new "talk language" created widespread interest, and the Indians, young and old, were soon engaged in practising the strange method of communication.

Later, the "Kamloops Wawa" was started, and was printed on a mimeograph for the first year, but after that Le Jeune succeeded in having type made, and it is now printed on a press in the nearest city. It has sixteen pages and contains all the news of the tribe and of the church that the missionary has built up in the main village. More than two thousand Indians have learned to read.

It is said that a very interesting sight is presented when one looks into a Cinook wigwam, where the women still use stone implements to prepare their clothing of deerskin, and behold the family grouped about eagerly reading the latest number of the "Kamloops Wawa."

Two papers are published beneath the level of the sea. "The Submarine" was the first to be issued, "the lowest down of any paper in the world." Another publication was begun at a still lower depth, and "The Submarine," to hold its record, was obliged to move. It announced its change of locality in the following words: "We have dropped from twenty-two feet below sea level to seventy-six feet below. The low rumbling noise heard yesterday was caused by the office and the press taking the drop."

"The Submarine" was an eight-page

weekly printed on blue-tinted paper. Its humorous department was edited by "McGinty," the gentleman who went down to the bottom of the sea. One column was headed "Undertow."

The Washington "Megaphone" is probably the most strangely situated newspaper in the country. It nestles on the verge of a primeval forest on one hand, while less than one hundred feet on the other the waves of the Pacific Ocean lap the shore. In front of the office runs a mountain stream which revolves, in its rush to the sea, a great mill wheel which, in turn, operates the "Megaphone's" printing press.

When respite from their tasks is afforded the members of the staff of the paper, they may gather apples by reaching out of a window. Just outside the door are pears, prunes, plums, and cherries, and a little farther away blackberries and salmon berries are theirs for the picking. Perhaps if the editor is of Waltonian bent, he can entice salmon, trout, and perch from their native element.

In a remote but busy village of the Canadian Northwest there was published some years ago a weekly newspaper in the handwriting of its proprietor, editor, reporter, advertising agent, and general utility man, the five combined. This man adorned his lively four-page sheet with caricatures rudely copied from the comic papers of the United States and England, and decorated his horse and stock advertisements with rough cuts.

This weekly appeared in purple ink from a gelatin reproducing machine, and its editorials and local news were so clearly presented that the little journal attained quite an influence in the territories, and was quoted by all the newspapers of Western Canada.

A newspaper produced by the same process was the "Mashonaland Herald and Zazesi Times," conducted by a Briton in the wilds of Africa and supported by subscriptions and advertisements from miners and traders.

It is thought that the most northerly of newspapers is, or was, the "Nord Kap," emanating weekly from Hammerfest, in Norway, from the little turf-roofed house of one Johannsen. The "Nord Kap" was, at last accounts, regularly printed from news received from a ship that touched at Hammerfest once in eight days.

It would appear that the publication of "freak" journals finds a profitable field throughout the world.

The first of the odd sheets devoted to the "interests" of engaged couples appeared a few years ago in Paris, and while at first thought it might be supposed that its field would be quite limited, it nevertheless prospers even to-day. Agents in the service of this journal are employed at various points in France collecting items of interest to persons who have contracted to marry. In each issue are set forth the names, addresses, and other information concerning engaged couples.

Each maiden mentioned receives a free subscription for a limited period. The real beneficiaries of this publication, of course, are the tradesmen who take the paper, since they are able to approach the girl intending to marry with more or less alluring inducements in the way of materials for trousseaux, etc.

The original sheet devoted exclusively to the interests of beggars was born in Paris. This paper, entitled "Le Bon Guide," affords daily a complete list of baptisms, weddings, and funerals to take place in Paris on that day, in order that its patrons may be well informed as to

favourable localities wherein to pursue the day's work.

For begging letter writers, "Le Bon Guide" publishes a list of the addresses, arrivals, and departures of travellers known to be of a charitable disposition.

The beggars of London, too, have their organ, but it is not so "classy" as the Parisian publication. The "English Beggars' Journal" is a weekly, and prides itself on the exclusive character of its information. It is unique in that it is written, not printed, the paper employed being the coarse brown variety commonly used by butchers and grocers to wrap their wares.

There are lots of other papers for beggars published in various foreign countries, as well as in the United States, but the French and British sheets are remarkable by reason of their big subscription lists and for the unquestionable influence they exert.

A queer French Journal which died some time before the outbreak of the war was "Le Bien Etre," whose sole object for existence seemed to be an old-age pension scheme. To subscribers who should die at the expiration of forty years, "Le Bien Etre" offered a free burial.

"Le Courier des Baigneurs" (Bathers' Courier) is the product of a well-known French seaside resort. It is printed on waterproof paper, the inducement to buy being predicated evidently on the idea that the bather may take his journal into the ocean with him and so enjoy its perusal while bathing.

On the other side of the Pyrenees the Madrilenians have their freak paper in the shape of the "Luminaria," which, it is claimed, is printed in ink containing an amount of phosphorous which enables the reader to peruse it in the dark.—From the *Hartford Courant*.

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PHOTOGRAMS OF THE YEAR.—That it is possible to produce this annual of such rich and varied contents during the fourth year of the greatest war ever known is, as the Editor observes, "one of the most amazing things that the stress of warfare and strain on natural resources has brought to light." True, these words are used in another connection, yet they are just as applicable here as elsewhere. The annual is just as varied and full of interest as ever—in fact, in some ways it has a greater interest as showing that those still left at home to carry on the work of the country are equal to the call made upon them, for this year's issue is not one whit behind those of previous years.

Another remarkable feature is the fact that the output of pictures depicting peaceful subjects appears to have actually increased, while their standard of pictorial merit was never higher.

The number of photographs placed at the disposal of the editor has been far in excess of the quantity he could use in the volume before us, consequently he has been able to make a very careful selection for originals coming from practically every part of the known world.

We heartily recommend this volume to all lovers of art, and feel quite safe in saying that no one will regret the cost. Of course, the difficulties in producing a work of this character under existing conditions are almost numberless. It is therefore with all the more pleasure we can testify to the excellent production for this year.

THE HOGGSON MAGAZINE is a quarterly published by the great building firm of Hoggson Bros. This is not merely one of the usual house organs, but aspires to much greater things; each number contains several special articles dealing with different phases of the building industry in which the public are interested.

The publishers claim that it is published in the interest of harmony, efficiency and economy in building, and in carrying out this idea they have certainly produced a very readable and interesting magazine, got up in really good style, and thoroughly well illustrated, not merely with cut and dried photographs, but frequently by illustrations specially drawn for the magazine by an artist who has entered thoroughly into the ideals of the publishers. Altogether a very creditable production.

THE DETROIT PHOTO ENGRAVING COMPANY send us one of their recent folders, which carries to the recipient the message that "OUR product is a 'first aid' to YOUR success—Use it." The folder is well got up and is effective though simple, which only shows that it is not at all needful to go to any great expense in order to secure something that shall arrest attention and lead to enquiry. That this will be the result of the issue of this folder there can be little doubt.

THE ILLUSTRATION OF YOUR CATALOGUE is the title of a booklet of "Kromatones," issued by the Photo Chromotype Engraving Company, of Philadelphia. The particular feature of "Kromatones" is that they are said to be prepared in a special way, known to the producers only, by which they will print cleanly, sharp, and bright on rough uncoated paper.

Some of the specimens sent us printed on antique papers are really good productions, and it is somewhat surprising to see half tones come out so clean and sweet on paper with so rough a surface.

Under present-day conditions process blocks that will give such good results on such unfinished papers will be very valuable to publishers, and we shall be interested in giving further particulars of these products should they come to hand.

TYPOGRAPHY THAT TEMPTS TRADE, by Joe W. Short, and issued by the Mortimer Co., Ltd., Ottawa, is a really dignified, choice piece of work. Truly a piece of typography that tempts trade, for any house seeking the aid of the press for business purposes having one of their booklets put into the hands of its principals, would not hesitate for one moment as to the ability of the Mortimer Company to carry to a successful issue any piece of work that might be placed in their hands.

The brochure in touch and appearance has an irresistible charm, and though we have seen a great deal of booklet work from many houses we have never seen anything to surpass "Typography that tempts Trade."

MAP MAKING is a very interesting and instructive booklet, issued by the house of Redfield-Kendrick-Odell Co., who specialise in the production of maps, and who no doubt are looking forward to a busy time as soon as the war comes to a conclusion and the new boundaries of countries are settled. This booklet is a short treatise on the making of a map, and gives some idea of the various processes by which maps are brought to their present state of perfection, and in addition gives some nine or ten examples of the different classes of maps produced by this company. It is well got up and reflects great credit upon the producers, and will no doubt bring them an equivalent return.

THE ECLIPSE for March contains some good matter re preservation of illustration blocks, and has a fairly exhaustive statement of the particular use to which the various screens are best suited, beginning with the 45-line screen, and ending with the 400-line screen. It is a very good issue indeed, and is exceedingly readable.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

Conditions in the Process Trade.

A review and forecast by Louis Flader, the Commissioner of the International Association of Photo Engravers.

MR. LOUIS FLADER occupies the exceptional position of Commissioner to the largest process-engraving association in the world, and as he is in constant touch with some five hundred process houses he has unique opportunities of gathering information, and it is not too much to say that no other man in the trade has such facilities for learning at first hand what are the conditions prevailing and the outlook for the immediate future of our trade.

The following are important extracts from his report to this year's Convention, and are of such vital significance that we reproduce them so that our readers may gather information and inspiration which may be of use to them in the trying days in front of us.

After discussing various details of the year's work Mr. Flader proceeded to say :

Business conditions have not changed for the better during the year as far as the photo-engraving industry is concerned. Please bear in mind that prior to the beginning of the war, about five hundred and twenty-five photo-engraving establishments were in operation in our country, for the purpose of rendering a service to business in general *as it was then organised and constituted*. Within a month after

war was declared in Europe, business began to adjust itself to the new conditions. A little over a year ago, when our country entered the war, business had already undergone great changes, and since that time it is organised on an entirely different basis than it was before. *If it required five hundred and twenty-five photo-engraving establishments to supply the demand for photo-engravings in 1914, it requires an entirely different number to-day, and we might consider ourselves in the position of a square peg trying to fit a round hole.* We are rounding into form, however, for, to the best of my knowledge and belief, about one thousand men have left the workshops and about forty photo-engraving plants have suspended or ceased operations.

It is unnecessary to tell you at length that the photo-engraver profits most during times when manufacturers, wholesalers, jobbers and dealers are making great efforts to market their goods. As practically all of our large industries and many smaller ones have been commandeered in one way or another by the Government in pursuit of its war policy, all those so affected have been removed from the competitive markets in their particular lines. They do not need to

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advertise, and, as a matter of fact, they have nothing to advertise, in the ordinary sense of the word. The machine manufacturer who formerly had a thousand customers, to-day has one—Uncle Sam. So it goes all along the line. We may consider our industry to be in a falling market. Photo-engraving is in a position where the supply is greater than the demand.

Fluctuations in the volume of business are extremely violent. The cost of production is higher than ever. Disband the International Association at this Convention and what do you suppose would become of the business as a whole and your business in particular? The International Association cannot and does not hold itself responsible for the success or failure of any individual member or non-member. It disseminates information and knowledge, crystallizes thought, forms policies and makes it possible for you to conduct your business in an efficient, honourable and profitable manner.

The relations between those of our members who operate union photo-engraving departments and the International Photo-Engravers' Union, generally speaking, are harmonious and mutually satisfactory. Violent fluctuations of business carry with it periods of unemployment and give rise to dissatisfaction and unrest. Notwithstanding these conditions, we have experienced less annoyances and losses resulting from labour disputes and demands than any of the printing trades. The International Photo-Engravers' Union and its local organisations have adhered strictly to every agreement entered into between themselves and employers, and at the expiration of these agreements have shown a disposition to be fair and to give con-

sideration to the interests of their employers and the industry as a whole.

* * * * *

As I predicted more than a year ago, the income and excess profit tax of October, 1917, has brought forcibly to our attention the necessity of better accounting methods on the part of the manufacturing photo-engravers. I remember distinctly the agitation and flurry prevalent on all sides when the time came to make tax returns. I know, too, that some photo-engravers for the first time in their lives realised that they never had a good understanding of their financial affairs. All of them have gotten a new and valuable experience at considerable cost, and it now remains for us to take advantage of the lesson learned.

It was our good fortune to secure the services of Robert McIntosh & Co., certified public accountants, who prepared for us a manual and a system of accounting which will be presented to you in printed form at this meeting. Read it carefully and, above all, study it. Every photo-engraver in the country ought to have placed before him at the end of every month a statement that contains the information tabulated in this accounting system. To know less means to know nothing at all.

It would be cruel to dwell upon the mistakes of the past and the conditions of the present and make no recommendation as to the future. What has the future in store for us and how are we going to meet it?

Present conditions may be described as follows:—

EFFECT.—The demand for photo-engravings is about thirty-three per cent. below normal. The cost of production is higher than ever before.

CAUSE.—The adjustment of business to war requirements. The inroads made by competitive methods of illustrating. The scarcity of materials and labour is responsible for the high cost of both.

Now as to the future. As industries are commandeered and concentrated for war purposes, the demand for photo-engravings will diminish. The exact ratio of diminution depends upon the length of the war. The cost of production will continue to rise, because both materials and labour will rise in price as long as war activities continue.

After the war, there will be a cessation of present-day activities and, in consequence, a period of stagnation until industry readjusts itself to the new conditions. *Business will never go back into the same channels, nor will it be conducted along the same lines that it was before the war.* New conditions will arise and new adjustments will be necessary to meet them. The photo-engraving industry will probably suffer most during that period between the time that the war ceases and new activities and adjustments begin and are well under way. From that time on, we should experience a period of the greatest activity, due to the fact that practically every manufacturer, wholesaler, jobber and distributor who has abandoned his former lines and devoted himself wholly to war products and Government contracts, will be in the position of a man starting in a new business, and the amount of printing, advertising and engraving that is bound to follow will be enormous. *It is worth all it costs and more to maintain our organization and to have our industry upon a sound footing in preparation and anticipation of that period of unprecedented activity. We have learned from experi-*

ence that activity does not necessarily mean prosperity, and this period will be a prosperous one for the photo-engraver only if we enter upon it as an organised body with a full understanding of every element entering into our business.

My advice to you is to forget the methods of the past. We are done with them for ever. Bad as they were, they were perhaps good enough under the conditions which existed at the time they were practised. Those conditions will never be duplicated, and to try to meet the new conditions with old methods will result in nothing but ruin for those who attempt it.

Why keep it a Secret?

FREQUENTLY, when a manufacturer is shown a particularly interesting story about the business of some other concern, he remarks, "I wish as interesting a booklet could be written about my business, but we haven't the same interesting facts to elaborate." The man who says this is all wrong. There isn't a manufacturing business or a manufactured product that is not full of human interest. Such a story can be written about any product, if the man who writes is willing to dig deep into the business. It would pay the average concern to print such a story about their business, even if nobody but their salesmen saw it. For getting the inside facts on a product will intensify the selling power and help the salesmen at the same time. It adds materially to the prestige of the concern that makes its knowledge known. Men become big only as they learn, and they profit as they pass along the things that they learn.

What does it Cost?

THE costing question, like the poor, is always with us. We as a trade seem no nearer finality in this matter than we were years ago.

No sooner have we found what is supposed to be a firm basis upon which to build a scale of prices, than it is made of little use owing to the constant and quickly recurring changes that take place in every department of our industry.

Wages, price of materials, output, Government restrictions, priority demands and a thousand other matters all combine to make any selling scale merely of passing value, to be revised again and again at exceedingly short intervals.

These experiences are not confined to this country only. Our readers are fairly conversant with the changes we have been compelled to make from time to time, and it will, we trust, be some little comfort to know that our American brothers are faced with similar difficulties.

We believe the following report of the American Costing Committee, together with the tables attached, will be of great educational value to the British process engraver. We therefore venture to reproduce them for the benefit of our readers, who will find a very marked similarity between their own experiences and that of their fellow engravers in the U.S.A.

The report reads as follows :—

This Cost Committee, being all manufacturing photo-engravers, has been unusually upset the past year in noting the increasing cost of nearly every item entering into the production of photo-engraved plates.

The increased cost, we may say, begins with the errand boy or the glass washer, and follows through all branches of productive and non-productive labour ; in

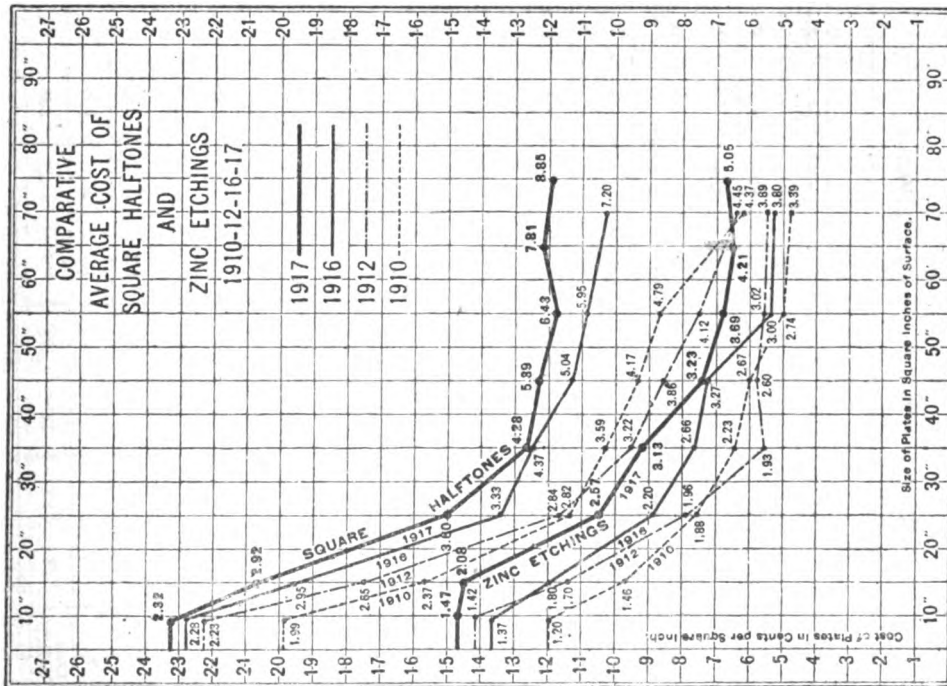
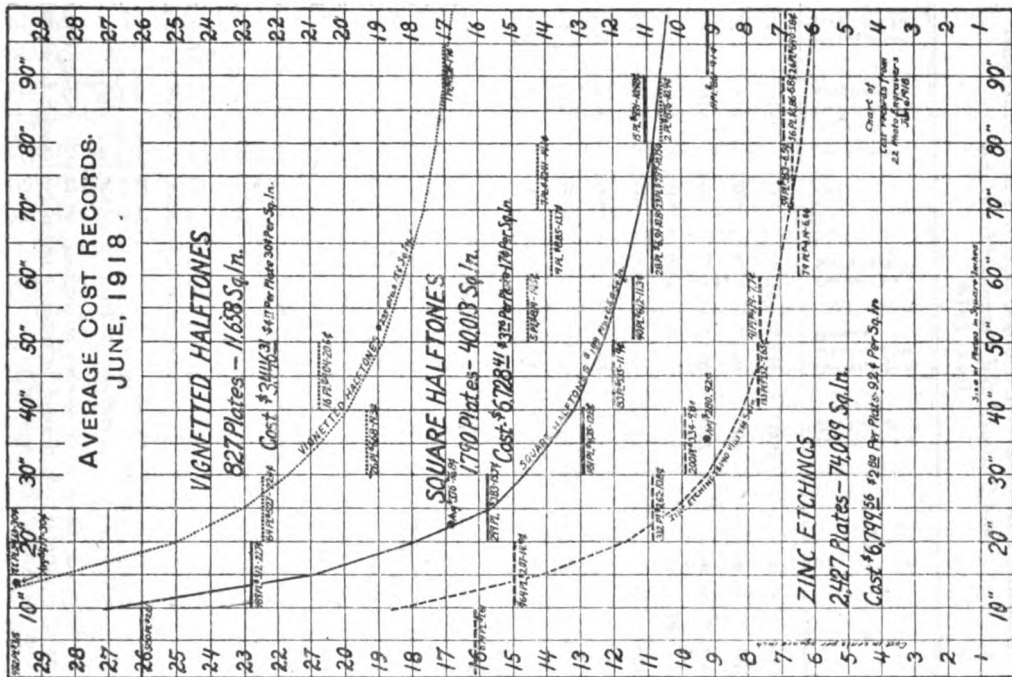
most every item of material, and is capped off with an added burden of Y.M.C.A. War Camp and Red Cross contributions, Liberty Loan Bonds and the Income Tax, which, in a sense, is a division of the profits with Uncle Sam, but your Uncle Sam will not be satisfied with less next year than last year. As a consequence, your net profit this year should be fully as great as last year.

With the increased cost of labour and material, as shown by the statistics gathered by your Commissioner, the only logical conclusion we can come to is that the engraver cannot and the consumer must pay for the increased cost of production. . . .

Your Cost Committee, being confronted with the same chaotic conditions that all of you are familiar with, and feeling that the new Standard Scale as adopted by the St. Louis Convention and which went into effect September 1st, 1917, being based upon information and cost records obtained in May, 1917, would answer the purpose for which it was intended at least for the present year, did not wake up to the necessity of new cost records until just prior to this Convention.

When the Executive Committee ordered us to make an investigation and by the time that we could prepare and send out blanks for that purpose, but very little time remained and we were able to secure cost records from only twenty-two different establishments.

After these records were tabulated, it could be plainly seen that we did not have sufficient data on hand to give us a true and an accurate knowledge of the increase in the cost of production that has gone into effect in the last six months. Yet the



**Relative Cost of Zinc Etchings, Square-Finish Half-tones
and Outlined and Vignetted Half-tones**
June, 1918

SIZE OF PLATES	Cost of Zinc Etchings per Sq. In.	Percentage Based on Cost of Sq. In.	Cost of Outlined and Vignetted Half-tones per Plate	Percentage Based on Cost of Sq. In.	Cost of Outlined and Vignetted Half-tones per Plate	Percentage Based on Cost of Sq. In.
Under 10 sq. in.	\$1.612	61.8 %	\$2.607	100 %	\$3.18	122 %
10 to 20 sq. in.	2.069	66.4 %	3.116	100 %	4.13	133 %
20 to 30 sq. in.	2.616	68.4 %	3.829	100 %	5.265	137 %
30 to 40 sq. in.	3.3475	75 %	4.349	100 %	6.683	155 %
40 to 50 sq. in.	3.516	68 %	5.143	100 %	9.046	176 %
50 to 60 sq. in.	4.191	66 %	6.124	100 %	8.142	133 %
60 to 70 sq. in.	4.145	60 %	6.915	100 %	8.848	128 %
70 to 80 sq. in.	3.529	44 %	7.973	100 %	10.408	130 %
80 to 90 sq. in.	5.863	63 %	9.209	100 %	8.76	
90 to 100 sq. in.	6.380	74 %	8.612	100 %	15.27	177 %
Over 100 sq. in.	8.360	60 %	14.063	100 %	21.41	152 %
Average Cost per Plate	\$2.801	74 1/2 %	\$3.758	100 %	\$4.167	111 %
Average Cost per Sq. In.	.0917	54 1/2 %	.1681	100 %	.2956	176 %

Theoretical percentage of the Average Cost of Zinc Etchings based on the Average Cost of Square-Finished Half-tones, mathematically computed, is 64 1/2 per cent.
Theoretical percentage of the Average Cost of Outlined and Vignetted Half-tones based on the Average Cost of Square-Finished Half-tones, mathematically computed, is 143 1/2 per cent.
Mathematical Formula: Add the average percentage per plate and the average percentage per square inch and divide by 2 to get mean average.

This report is a composite of the cost reports made by twenty-two different photo-engraving plants located in various cities and includes the following units:

Zinc Etchings, 2,427 Plates..... 74,099 Square Inches
Square-Finished Half-tones, 1,790 Plates..... 40,013 Square Inches
Outlined and Vignetted Half-tones, 827 Plates..... 11,658 Square Inches

This report illustrates the necessity of obtaining cost records covering a vast amount of plates in order to avoid the erroneous impressions bound to be created when small numbers are considered.

**Comparative Costs of Square-Finished Half-tones and
Zinc Etchings for the Years 1912, '16, '17 and '18**

The Cost of Square-Finished Half-tones

Size Sq. Inches	1912		1916		1917		1918	
	Cost per Plate	Cost per Sq. Inch	Cost per Plate	Cost per Sq. Inch	Cost per Plate	Cost per Sq. Inch	Cost per Plate	Cost per Sq. Inch
0-10	\$2.23	22 3/4	\$2.28	22 8/16	\$2.32	23 1/4	\$2.60	26c
10-20	2.65	17 1/2	2.95	19 1/4	2.92	20 1/4	3.11	23
20-30	2.84	11 1/2	3.33	13 1/4	3.60	15	3.83	16
30-40	3.22	9 1/2	4.37	12 1/2	4.28	12 1/2	4.35	13
40-50	3.86	8 1/2	5.04	11 1/4	5.39	12 3/4	5.14	12
50-60	4.12	7 1/2	5.95	10 9/16	6.43	11 1/4	6.12	11 1/2
Over 60 inches	4.45	6 1/2	7.20	10 1/4	7.81	12 1/4	9.73	10 3/4

The Cost of Zinc Etchings

Size Sq. Inches	1912		1916		1917		1918	
	Cost per Plate	Cost per Sq. Inch	Cost per Plate	Cost per Sq. Inch	Cost per Plate	Cost per Sq. Inch	Cost per Plate	Cost per Sq. Inch
0-10	\$1.42	14 1/2	\$1.37	13 7/16	\$1.49	14 9/16	\$1.61	16c
10-20	1.70	11 1/2	1.80	12	2.08	14 1/2	2.07	15
20-30	1.96	7 9/16	2.20	9	2.57	10 1/4	2.62	11
30-40	1.93	5 1/2	2.66	7 1/4	3.13	9 1/4	3.35	10
40-50	2.60	5 1/4	3.27	7 1/4	3.23	7 3/4	3.52	8
50-60	3.02	5 1/2	3.00	5 1/2	3.69	6 1/4	4.19	8
Over 60 inches	3.89	5 1/2	3.80	5 1/2	4.21	6 1/2	6.23	5 1/2

tendency is clearly upward, as you will observe by a close study of the diagram appearing on another page on which are charted the costs of vignetted half-tones, square half-tones and zinc etchings, each classified according to size. It is our firm belief that the increased cost of production in 1918 over that of 1917 is close to fifteen per cent.

We recommend that as large a number of firms as it is possible to interest in the matter be requested to furnish the cost of production on all plates produced in their establishments for a period of at least six months.

If this is done, we will have the cost records of perhaps a million plates produced in different cities at the same time and in consecutive order. The averages thus obtained will be absolutely safe as a foundation for the true average cost and basic selling schedule. Averages, to be of real value in a matter of this kind, must be made up from an immense number of units. In that way only can we arrive at safe conclusions, because such inequalities as are bound to occur and which are not only disturbing, but positively misleading at times, will not be of sufficient importance to disturb the accuracy of averages obtained from, let us say, a million plates. We know there are exceptions to every rule, and the danger lies in making up averages taken from units, small in number and which accidentally or otherwise may be composed almost in their entirety of exceptions.

In connection with our report, we are publishing a table of the present prices of materials and a table of prices prevailing in previous years, so that you may compare them. We are publishing all available data for your complete understanding of the subject, so that you may be

able to come to a logical and safe conclusion.

If a revision of the scale is considered, particular attention should be given to the fact that the scale figures for zinc etchings are one-half the figures for square half-tones, but the cost figures submitted make it perfectly clear that the price for both kinds of plates should be based on the exact cost figures rather than upon expediency.

The diagram of the cost of production of vignetted and square half-tones and zinc etchings will be an object lesson and the best possible evidence we can put before the Federal Trade Commission, or any other authoritative body, and prove conclusively to the satisfaction of all concerned that any other plan of basing the charges for photo-engravings is not only unfair, but absolutely out of the question. . . .

Your Cost Committee is convinced that the safety of our industry depends, more than ever, upon the installation and maintenance of cost-finding systems, and that the price of our product can be made on no other basis than the ascertained and known cost of production.

Contented Employees.

A QUESTION paper was recently sent around to twenty large firms, asking the best methods of making employees loyal and contented.

The five main reasons as given by the twenty firms were as follows, in the order of their importance :

1. Fair Wages.
2. Fair Dealing.
3. Promotion.
4. Good Working Conditions.
5. Welfare Work.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

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The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an Open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

IN consequence of the great falling off in the demand for illustrations owing to the restriction of trade and possibly occasioned by the great shortage of paper, etc., etc., there has not been so great call upon the time of the members of the Council during the past month as in recent times. Consequently there have been but two meetings, and as the holiday season, for those who can indulge in holidays, is now fully upon us in all probability the meetings for the next month or so will be fewer than usual.

As reported in our last the Council is still in correspondence with H.M. Stationery Office re the supply of illustrations for Government purposes, but as this correspondence has not yet come to a conclusion there is nothing further to report. There are still various matters which need careful dealing with, and when agreement is arrived at the result will be reported to the trade.

It has been reported to the Council that in some parts of the country the National Service Tribunals affect to disregard the National Service Department's circular to regions re the exemption of certain classes of men in the process engraving trade. Should any of our readers meet with such a case so far as their men are concerned, an endeavour should be made to get the case adjourned for a time in order to get an official copy of the Order, as the Council fully believe that with such a document before them the tribunals will see the necessity of acting

according to the instructions there given. So far only one case has been reported where the order has been called in question.

A new process firm has recently been started, and has applied for membership in the Federation. They will be welcomed into the trade, and we can but congratulate them upon the heroism that tempts them to venture into such troubled waters at the present time. It is hoped their courage will meet with the return it deserves.

The question of the discount that may be allowed by one trade house to another was further discussed, there being evidence of a desire on the part of some few houses to continue upon the original lines laid down rather than the revised scale sent out a few weeks ago.

The Council having given the matter very mature consideration could not see its way to alter the decision so recently come to. Still it wished to meet the expressed desire of those houses who had entered into arrangements upon the old lines. It was therefore decided that the new scale should not apply to houses who were working on those lines to the mutual satisfaction of all concerned. They should be allowed to continue as heretofore, but it was pointed out that definite arrangements should be made between house and house as to the particular set of terms, conditions, etc., under which the work was to be produced, before it was put in hand, and so save any question arising afterwards.

As was pointed out last month it must be distinctly understood that no house has any CLAIM upon another house either in the matter of service or discount. Any work offered will be accepted only if the house to which it is offered is in a position to execute it, and the question of

discount must be arranged mutually and will be binding on each party.

From returns received from 75 per cent. of the houses in the country it would appear that about 68 per cent. of the entire staff of the process engraving trade are in the army, those remaining consisting of a few men over military age, lads, females, clerks, etc., etc. There are only about 11 per cent. of the staffs under exemption, and in practically every case they are men of low category. From these figures it is evident that the process engraving trade has done nobly, for it must be pointed out that the present staffs consist to a very great extent of those brought into the trade since the war commenced.

That out of just about 3,000 employees less than 200 should have been applied for and secured exemption, is strong testimony not only to the patriotism of the men themselves but also that of their employers, for it must be apparent to the most casual observer that figures such as these could only have been secured by the greatest self-denial upon the part of all concerned.

The question as to whether process engravers are manual workers or not is still unsettled. It was considered that Mr. Justice Warrington's award settled the point, but as doubt has been thrown upon the decision, it has been agreed that the matter shall be put to a decisive test, both sides having agreed to a reference to an umpire ; the decision will be awaited with a great deal of interest and will be circulated among the employers as soon as it comes to hand, and has been considered by the Council.

Further steps have been taken in order to secure the co-operation of newspaper houses with the Federation. Should this

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be accomplished there will then be every prospect of a lasting benefit to the trade as the outcome of the efforts put forth by the Council to make the Federation really useful, not only to the members, but to their employees as well, and so raise the status of the trade to that point of usefulness and dignity from which it should never have fallen, and it is believed that the great majority of the process engraver's customers will be more than gratified by the superior workmanship of illustrations turned out under such conditions.

Well worth Consideration.

IT makes no difference in what particular line of business you make your living, there is one duty you owe to yourself, and that is to know the news of that business outside of your own environment. The wider your information on matters concerning your trade, the better are you able to conduct your own immediate affairs in your factory and in your office. The trade journals supply so much important information that no manufacturer or business man can ignore them with impunity. And in cases where technical matters are treated by able men of practical experience in shop and factory, it is of equal importance that the workers in that trade should read and absorb the information imparted. The information contained in a single article is often worth more to the careful reader than the price of many years' subscription. Such reading broadens the mind and assists in enlarging the earning power.

*The Industrial Awakening.**

*By Ernest J. P. Benn, Chairman of the
Industrial Reconstruction Council.*

THE really surprising advances in public thought on the problems of our industrial future is one of the most encouraging developments of these epoch-making days. Six months ago the propaganda with which my council is associated was considered by many as violently Socialistic, if not indeed revolutionary. To-day we can state our aims with a feeling that most serious-minded people are in sympathy with us.

The "I.R.C." is a propagandist body established to preach the doctrine of Self-Government for Industry—the complete organisation of every trade; every man in his union, every employer in his association, and from the two an elected Trade Parliament in every trade with proper status and adequate powers.

We are specially interested at the moment to spread a wider knowledge of the Whitley Report, because that report is the first practical step towards the ideal we have in view. The Whitley Report established two great principles. First, that in any scheme of industrial reform the unit must be the trade. The problem must be tackled trade by trade, one trade at a time. Second, that the responsibility for the future of our industries must be shared by all parties and that there must be complete co-operation to this end between employers and employed.

*We are indebted to the Editor of the *Evening Standard* for this article.

We are witnessing the birth of a new spirit in industry. The ideas of service, of mutual responsibility, of national need, are slowly getting hold of us. Twenty-five years ago it was difficult to find two men of a trade on speaking terms. To-day it is almost impossible to find a firm that is not closely allied in a trade association with all its rivals and competitors. Twenty-five years ago the workers were largely unorganised, mostly uneducated, and almost entirely devoid of those aspirations and ambitions which actuate every corner of the labour world to-day. The trade association and the trade union have revolutionised things in the lifetime of the present generation. We have witnessed the disappearance of an era of competition and the arrival of an era of co-operation. The only bit of the old fighting spirit left is that which exists between so-called labour and so-called capital. We have now reached the last stage in the evolution of co-operation, the bringing together of these two great forces.

The fighting spirit will never be eliminated so long as the race is vigorous and healthy, but for Heaven's sake let us make sure that we are fighting the real enemies. We shall have no time in the future to fight one another. We shall be far too busy, shoulder to shoulder, fighting ignorance, waste, war debt, foreign competition, Government interference, fighting to clothe and feed and house the human race in such a way as to justify the word "civilisation." These are objects well worthy of the united efforts of capital and labour.

When once we get hold of the idea of a trade as a unit, as a branch of national service, when we begin to realise the truth that the whole is greater than the part, that the best way to be a successful man is to belong to a successful trade, then all

sorts of fascinating possibilities open up to us.

If you will take the Whitley Report with these ideals in mind and read between the lines, you will begin to realise what the new spirit in industry is capable of doing. When we get an Industrial Council or Trade Parliament in every trade, there will at last be a chance for the full development of each trade for the benefit of the nation and of all those engaged in it. We shall then be able to complete the process of pulling the trades together.

The war has shown to some extent what can be done in this way. The Government has taken whole trades and managed them as trades; and output, wages, and profits have increased enormously. These trades now begin to realise the benefits of a united policy, but in future they will do it themselves without the help or hindrance of the Government.

Self-government for industry, a trade parliament in every trade, will enable us to get rid of most of the muddle and misunderstanding of the past, and to develop on sound and progressive lines in the future.

Among the many opportunities that will open up there will at last be a chance to give to labour an insight into some of the difficulties of commerce and industry, a chance to put up a decent fight against the foreigner, to get the tariff question out of the cockpit of party politics, to get the management of the trade into the hands of the trade and out of the hands of the Government, a chance for each trade to pull its full weight, a chance to reconstruct on sound lines, to develop the big idea in business, to make science and education main issues instead of side shows.

The Unrest in the Printing World.

THE difficult position created in the printing world by the action of the Manchester and Liverpool Typographical Society in demanding another increase in wages so soon after the increase given recently, needed all the wisdom of the Master Printers' Federation on the one hand and of the leaders of the Typographical Society on the other hand, in order to prevent it developing into one of open hostility.

It seems strange that any one section of a society can jeopardise the position of a whole trade by precipitate action. Had the demand come from a national society it would have had a different appearance, but in this case it is the Manchester and Liverpool section that precipitated the crisis, and one cannot but remember that it was this same section that was responsible for the last demand, made in defiance of the emphatic promise previously given that no further demand would be made unless conditions so greatly changed as to necessitate a further increase.

We understand that when this society was reminded of their engagement and asked to show in what way conditions had altered for the worse to the employee, no satisfactory answer could be given or was even attempted, the reply being merely that they desired such increase simply because employees in other trades had secured it. What their excuse for this further demand is we do not know, but it is evident to every one that during the few weeks that have elapsed since the last agreement was made, conditions have not altered to any extent that would

justify a further demand for an increase of 15/- per week in addition to all previous increases.

Such action as that now under consideration looks too much like trying to take advantage of the present unfortunate position of the trade. The employers have great difficulty in getting their orders turned out in anything like the time required, simply because they cannot secure employees sufficient to do the necessary work thereon. Can it be that the employees knowing this are out to exploit the situation, and are determined to take advantage of the position in which their employers and the public find themselves? It is to be hoped that such a course, if such be the case, will be openly disavowed by the men's leaders at headquarters, for anything more inimical to the welfare of the country can hardly be imagined.

We understand that the masters were perfectly willing to discuss matters from a national standpoint, but did not feel called upon to enter into negotiations for a sectional settlement, and in this, in our judgment, they have shown eminent business ability. All such questions, which are really national and not sectional, should be dealt with nationally.

It is a source of much satisfaction that such a condition could not arise in our trade, as happily all agreements are national agreements. Consequently it is impossible for any one section to upset the whole of the trade by precipitate action; neither do we believe that the officials of the Men's Union would countenance any such action were it attempted.

Convention of the I.A.M.P.E.

THE Twenty-second Annual Convention of the International Association of Manufacturing Photo-Engravers was called to order as scheduled, Thursday, June 20th, at 10 a.m., by Mr. Charles J. Doyle, Chairman of the Detroit Photo-Engravers' Association, in the large Meeting Hall of the Hotel Tuller. There were present about 250 delegates, representing over one hundred businesses from all parts of the country.

The Officers' Reports, compiled in a pamphlet of thirty-eight pages, were read and created a decided impression in the minds of the audience. These reports amply demonstrated the seriousness of the situation and the clarity of vision and power of analysis possessed by the men in charge of the affairs of the photo-engraving industry.

Aside from the routine work of the Convention the discussions had upon all important topics proved of great interest, and were participated in by practically every member. Everyone seemed to feel that he was a part of the Convention, and all appeared to be willing to contribute in thought and words to the success of the industry.

Among the most important addresses made were the following: "The Problem of Materials," by A. J. Newton; "The Problem of Labour," by Charles A. Stinson; "The Problem of Business," by E. W. Houser and Roger Cunningham; "The Problem of Prices," by Adolph Schuetz and F. W. Gage; "The Necessity of Proper Accounting Methods," by Joseph Mack; "The Question of Credits and Collections in War-time," by E. A. LeGros; "The Necessity of Cost Finding," by M. J. Colgan and N. T. Mears.

The War Service Committee's Report, made by President E. C. Miller, was pronounced by all as the most remarkable document ever presented concerning the photo-engraving industry.

Another progressive step, and one of great importance, was the preparation and issuance in pamphlet form of a complete accounting system suitable for photo-engravers, drafted by Robert McIntosh & Co., certified public accountants, for the International Association. This was also given to the visitors printed in permanent booklet form.

The most interesting and important work of the Convention was the discussion of the Cost Committee's Report, which dealt with the cost of production during the twelve months ending May 31st, 1918, and which demonstrated beyond a doubt that the cost of photo-engravings was mounting steadily and that the standard scale as now constituted was inadequate to meet the new cost conditions. An evening session was held and the subject was discussed from every angle by all those present. A secret ballot was taken on which every one had an opportunity to express his personal views on the question of revising the figures on the standard scale. The result of the secret ballot was unanimously in favour of revision.

It was finally decided unanimously, that the standard scale be revised on the following basis:—

Square finish half-tones: minimum charge (5 square inches), \$3.00.

Zinc etchings: minimum charge (5 square inches), \$2.00.

The succeeding figures on the standard scale to be computed on the following basis:

THE PROCESS MONTHLY.

Square finish half-tones, \$2.50 plus 10c. per square inch up to 50 square inches ; 15c. per square inch thereafter.

Zinc etchings, \$1.66 $\frac{2}{3}$ plus 6 $\frac{2}{3}$ c. per square inch up to 50 square inches ; 10c. per square inch thereafter.

The new rate of zinc etchings is based upon the fact well known for years, that zinc etchings cost two-thirds as much as square finish half-tones. Although this cost fact has been known for years especially to all those who operate cost systems, this is the first time in the history of the business that the cost of zinc etchings has been taken into consideration in establishing a selling period.

The Cost Committee was instructed to prepare the revised standard scale, this latter to become effective Sept. 1st, 1918.

The scarcity of labour came in for considerable discussion, and the restrictions placed by the Government upon certain materials was also considered. A Special Committee was appointed to engage in research work and to find substitutes for unusually expensive, restricted and unobtainable materials, and to encourage and pass upon all inventions of interest to the trade.

The Cost Committee was instructed to encourage cost finding and to gather statistics pertaining to the cost of production covering an immense quantity of plates, for the purpose of determining at all times in the future, a selling price fair alike to the producer and the consumer.

GIVEN a skilled staff, each member competent in his own department, with a suitable environment, there is no reason why England cannot produce as satisfactory work in collotype as is done in half-tone letterpress, or in photogravure.

The Industrial Reconstruction Council.

AN important series of lectures is announced by this Council for the autumn and winter. The first of these will be given by the President of the Board of Trade on Wednesday, October 2nd, Mr. G. N. Barnes, M.P., occupying the chair. Other lectures will follow at fortnightly intervals. The lectures will be held at the Saddlers' Hall, Cheapside, at 4.30 p.m. The complete list is as follows :—

Wednesday, October 2nd.—“Commerce and Industry after the War.” Lecturer, Rt. Hon. Sir Albert Stanley, M.P. (President of the Board of Trade). Chairman, Rt. Hon. G. N. Barnes, M.P.

Wednesday, October 16th.—“Principles of Reconstruction.” Lecturer, Rt. Hon. Christopher Addison, M.D., M.P. (Minister of Reconstruction). Chairman, Rt. Hon. the Lord Mayor of London (Alderman Sir Charles A. Hanson, Bart., M.P.)

Wednesday, October 30th.—“Functions of the Government in Relation to Industry.” Lecturer, Mr. W. L. Hichens (Managing Director, Cammell, Laird & Co.). Chairman, Sir Wilfrid Stokes, K.B.E. (President, Industrial Reconstruction Council).

Wednesday, November 13th.—“International Trade.” Lecturer, Sir Arthur Steel-Maitland, Bart., M.P. (Department of Overseas Trade). Chairman, Rt. Hon. Lord Burnham, C.B.

Wednesday, November 27th.—“Labour and Industrial Development.” Lecturer, Mr. Ernest J. P. Benn (Chairman, Industrial Reconstruction Council).

cil). Chairman, Rt. Hon. J. H. Whitley, M.P.

Wednesday, December 11th.—“Science and Industry.” Lecturer, Sir William S. McCormick, LL.D. (Department of Industrial and Scientific Research). Chairman, The Marquess of Salisbury, K.G.

Germany and Business after the War.

THE Dorking Chamber of Commerce has set an example of patriotism that may well be followed by all other Chambers of Commerce throughout the country, in that it has laid its plans to defeat Germany's business endeavour in its own district, when the attempt is made, as undoubtedly it will be made when the war is over.

The resolution referred to shows that the cry “Be kind to Germany” finds no echo in the councils of the Chamber. Not that it is thirsting for the blood of the German, but has come to the conclusion that the sins of the past must be completely atoned for before anything like business relations can be established once more.

There can be no doubt that Mr. F. S. Corkett, the proposer of the resolution, feels very deeply upon the subject. We must say we have every sympathy with him in the attitude he has taken up and we congratulate him that he has so effectually pleaded his case that he has carried the Council of the Chamber with

him, and we heartily trust that other Chambers of Commerce will be spurred to a similar effort, and so prevent Germany from obtaining once more such a hold upon British trade as she had in pre-war days.

The Resolution, passed by the Dorking Chamber of Commerce in General Meeting, was as follows :—

“That this meeting of the Council and members of the Dorking and District Chamber of Commerce having noted with profound astonishment and regret the entirely unjustified hatred and ill-will of the German people towards the inhabitants of the British Empire, and particularly their most cruel and inhuman treatment of the British prisoners in their hands, and as an expression of this Chamber's detestation of such unparalleled inhumanity, hereby pass the following resolution and at same time ask all Chambers of Commerce and Mercantile Institutions throughout the Empire to unite with us and pass a similar resolution :

“That notwithstanding whatever may be the terms of peace that may hereafter be decided on, this Chamber of Commerce will exclude for a period of 25 years from the date of the declaration of peace any German from membership of this Chamber ; will boycott by all means in their power all productions of German origin or manufacture ; will refuse to deal directly, or indirectly, with German houses of business, or treat with agents of such German businesses. Further, they will refuse to deal with any person whatsoever who knowingly buys any German product when British products of the same nature are obtainable, and will also refuse to support any paper or other publication that advertises goods of German manufacture.”

Welcoming New Employees.

JOHN DYER, LTD., of Southsea, have a very fine way of welcoming new employees.

The following printed card is given to each new worker :—

TO MY FELLOW WORKER :

MR. NEW-COMER.

In the name of the firm and staff I offer you a real hearty welcome and hope you will quickly settle happily with us.

John Dyer's Progressive Council exists to maintain a loyal atmosphere to the firm and each other, and by its humanising efforts to make business a thing of dignity, pleasure and mutual progress.

Under the Council there are the Sports, Social, and Library Committees, and your contribution, according to talent, will be welcomed.

A suggestion scheme affords you opportunity to give the house full benefit of your business experience, and everyone

is expected to freely advance opinions or criticisms.

A Thrift Club has been instituted in order to encourage thrift—money can be withdrawn for the Summer and Christmas holidays as desired.

You have received your appointment not only because of certain capabilities, but also upon the estimate of your personal character and progressive temper of mind.

This being so, should the time come when things seem to go wrong, or you think you should be making an advance, why not first have a chat as to your prospects here—we are out to serve each other—not ourselves only. Any general information or legal, if possible, that would assist you in your personal development is offered with true pleasure.

B. W. VEYSEY,
Managing Director.

A Success Recipe.

IT is always interesting to read the opinions of those who are qualified by their experience and commercial position to speak with authority, and to be acknowledged as leaders in their department of authority. Therefore importance will be attached to the prescription for the young man ambitious to reach success, as set out by the world's largest industrial employer, Elbert H. Gary. There are eight of them, as follows :—

1. He should be honest, truthful, sincere, and serious.
2. He should believe in and preach and practise the Golden Rule.
3. He should be strong and healthy, physically and morally.
4. His habits and mode of living should

be temperate and clean, and his companions selected with regard to their character and reputation.

5. He should possess good natural ability and a determination constantly to improve his mind and memory.

6. He should possess a good education, including particularly the fundamentals, such as mathematics, grammar, spelling, writing, geography and history ; and also a technical education concerning the lines he proposes to follow.

7. He should be studious and thoughtful, keeping his mind upon a subject until it is mastered.

8. He should be conscientious, modest but courageous, energetic, persistent, even-tempered, economical, faithful and loyal to his friends and the interests he represents.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

*What is Cost?**

COST may be defined as the sum of all the expenses direct and indirect, incurred in the production of a given article. It is the exact point between profit and loss. Yet how many manufacturers know the exact amount they make, or lose, on each job they carry out?

What is meant by a Cost System?

A Cost System implies a systematic method of discovering cost, as opposed to guessing. It means a certain amount of routine, for no proper system can be evolved which does not necessitate some clerical work and the keeping of various forms.

What are the main essentials of a proper Cost System?

They are that it should be : (1) simple, (2) accurate, and (3) elastic. It should be simple, because simplicity implies ease in operation as well as economy in clerical labour. It should be as accurate as possible, for if its principles are not scientific, it will not command the assent of the trade, and, therefore, it will fail to secure that universal adoption which is so desirable. It should be elastic in order that it can be adapted to large and small shops alike.

*Extracted from an article on "Science in Business," by J. Percy Plant, Joint Managing Director of Manifoldia, Ltd., and which appeared in "The Business Man."

Previous Cost Systems.

Of these two alone need be mentioned : (1) The system by which an identical percentage, sufficient to cover all general expenses, and based on the previous year's profit and loss account, was added to wages and material alike. This is unscientific, because far too large a percentage has to be put upon material, and anyone using such a system would be quite out of the market when quoting against a competitor employing a more scientific system, on an order containing much material and little labour.

It is true that the same manufacturer might successfully secure the jobs in which there was much labour and little material ; but the tendency would be for him to secure this class of job alone, and he would probably, therefore, be much out of pocket at the end of the year. (2) The system by which, material being practically taken at cost price, a percentage was placed upon labour sufficient to bear all other expenses. This, again, was unscientific, because it put all the expenses on to labour, and none on to material. The result would be that the manufacturer would secure those jobs in which there was a large amount of material, and lose those in which labour was the principal expense, and thus he would be unable to secure enough work to cover his general expenses.

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A sound system of Costing must have the following essential points :

(1) The cost per hour (if the work is done on time), or per piece unit (if the work is done on piece) must be found for each process in the business.

(2) The hour or piece-unit cost should cover all the expenses of wages and general expenses (e.g., idle time, rent, rates, taxes, selling expenses and interest on capital, etc.).

(3) A percentage sufficient to cover the cost of warehousing, handling and selling should be added to the nett cost of material.

(4) The individual cost of each job on the above basis should be ascertained, to which should be added a reasonable amount for nett profit.

(5) The above hour costs should be automatically checked at recurring intervals, so that the manufacturer may know that the hourly rates on which he is working are covering the costs of production.

Enterprise.

THE work of illustrating books and magazines of fiction in this country is almost entirely in the hands of artists of the brush and pen ; very little of it indeed is touched by photographers. There is evidence, however, that photography in other countries is stepping into the field which has been so long the exclusive preserve of painting and drawing.

Frederick Boissonnas, of Geneva, has met with considerable success in this direction, but the most striking proof of what can be done by the camera, in illustrating works of fiction, comes from the Lejaren à Hiller Studios in America. Within the past few years hundreds of

pictures, bearing the cryptic signature of Lejaren à Hiller, have elbowed their way into the leading American magazines, such as "The Saturday Evening Post," "McClure's," "Cosmopolitan," and "Harper's Bazaar."

At first readers were puzzled. These unusual pictures combined so many of the qualities of wash drawings with the pleasing gradations of photographs, that very few people could say whether they were produced by the brush or the camera. The pictures were all photographs, however, and the explanation lies in the fact that the Hiller Studios are conducted by two trained artists, Mr. Hiller and Mr. Fangel, both of whom had a wide experience in illustrating stories and articles for popular magazines years before they took up photography. When they eventually opened a photographic studio, they brought to their new work a thorough understanding of all that the author, the magazine editor and the reading public look for in illustrations. By long experience they knew not only which were the best incidents to choose, but also how to make the most of those incidents.

All this is just another example of that truth which has been so often emphasised in these pages : that there is hardly any limit either to the applications of photography or to the commercial possibilities that lie before those professional photographers who combine technical knowledge with artistic ability.—*The Professional Photographer.*

(Continued from page 131).

fronts during the present campaign, and we feel sure our readers will join in the wish that for the remainder of the war the good fortune that has been his portion hitherto may still attend him.

EMPLOYING PROCESS ENGRAVERS AT THE WAR

AMONG those who were first called to the service of their country upon the outbreak of war was Lieut. Frank Morley Eamer, one of the directors of the Marshall Engraving Company, who when actively engaged in commercial life found part of his recreation in one of the Territorial units, the Middlesex Hussars, 1st County of London Yeomanry.

Entering thoroughly into the spirit of the work, the annual manœuvres became a source of great pleasure to him, and it was while his unit was thus engaged in 1914 that the news was conveyed to them that war was declared, the consequence

being the manœuvres were immediately abandoned, and the whole battalion were mobilised on a war footing, on August 5th, 1914. Soon as they were fitted out they were sent to the East Coast Defences, where Mr. Eamer served till the following April, when those who had volunteered for foreign service were drafted to Egypt, forming part of the Egyptian Expeditionary Force for the defence of the Suez Canal, etc.

Here he took part in several engagements

and during August of the same year was attached to the Mediterranean Expeditionary force and sent with it to join in the Gallipoli campaign, where he took part in the actions at Suvla Bay and Chocolate Hill.



✓ LIEUT. FRANK MORLEY EAMER.

It was while engaged in this expedition that he was seized with dysentery and enteric, and was immediately transferred to Malta, and upon recovery returned home to recuperate.

He was, however, not long idle, for in the following October he gained his commission as Second-Lieutenant and was immediately after sent to France (Somme district) where he had charge of a labour party and

did excellent work. Soon as this was completed he was transferred, during the following April, to the Machine Gun Corps, and upon completing his course of instruction was sent out to join the Salonica forces, where he arrived toward the close of the year 1917, and soon after secured his promotion as first lieutenant.

Not many process men, we think, will have seen active service on so many

(Continued on page 130).

Canadian Price-List for Photo-Engravings.

Terms: 30 days, net cash.

ENGRAVINGS ON COPPER.

	Per sq. inch.	Minimum charge.
	s. d. ...	£ s. d.
HALFTONES, square finish	0 11 ...	0 12 6
" specially staged	1 5½ ...	0 16 8
" close cut	1 4½ ...	0 16 8
" vignetted	1 8 ...	1 0 10
JEWELLERY HALFTONES, direct (setting up extra at 6 3 per hour)	2 1 ...	1 0 10
HIGHLIGHT HALFTONES	2 1 ...	1 15 5
INTAGLIO	1 8 ...	1 11 3
TECHNICAL AND MECHANICAL WORK, with special finishing and tooling	1 10½ ...	1 5 0
DUPLICATE HALFTONES: Charge at regular rates, less 10 per cent.		
COMBINATION LINE AND HALFTONE	2 1 ...	1 11 3
Extra negatives and inserting, 4 2 each.		
COLOUR PLATES, Duo-Tones, on basis of largest plate	3 1½ ...	2 1 8
" " Tri-Colours, on basis of largest plate	5 7½ ...	10 8 4
" " Quadri-Colours, on basis of largest plate	6 10½ ...	12 10 0
SET OF TWO COLOUR PLATES, one halftone and one line cut, including registering, " painting in," and proofs, per square inch	2 1 ...	2 1 8
Set of two colour plates, consisting of one combination line and halftone plate and one zinc plate, including registering, " painting in," and proofs, per square inch	2 6 ...	2 10 0
Cutting out, vignetting and tooling on colour work, charged extra.		
In case of a long, narrow plate, the depth is to be reckoned at ¼ the length.		
" Rush " work and Copy to be reduced to ⅓ or less, to be charged double.		
LINE ENGRAVING on Copper	1 3 ...	1 11 3
SUR PRINTING, 2½d. per square inch, Composition extra.		

ENGRAVINGS ON ZINC.

HALFTONES, square finish (85 lines or coarser) mounted or unmounted	0 9 ...	0 10 5
LINE ENGRAVINGS	0 5 ...	0 6 3
LINE WORK, requiring special care, such as maps, script, etc.	0 9 ...	0 12 6
EMBOSSING OR REVERSE PLATES (zinc)	0 7½ ...	0 8 4
LITHO TRANSFERS	0 3 ...	0 8 4
COLOUR PLATES—		
2 Colours, in line, on basis of largest plate	1 5½ ...	1 11 3
3 Colours, in Line, on basis of largest plate	2 1 ...	2 1 8
4 Colours, in Line, on basis of largest plate	3 1½ ...	3 2 6

Ben Day Work charged extra at 8 4 per hour.

GENERAL CHARGES.

Circles, ovals and special shapes	3 1½ extra.
Mortising	outside 7½d., and inside 1/1.
Extra black and white proofs, square finish	5d. each
" " " vignetted	1/1 each.

All Classes of Work Charged on Block Measure.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. F. H. VAUS,
Messrs. Vaus & Crampton, Ltd.,
Kirby Street, London, E.C. 1.

Treasurer—

MR. EDWARD W. HUNTER,
André Sleigh & Anglo Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.

Telephone: 5596 Bank.

Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an Open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

THE meetings of the Council during the past month have not been so numerous as usual, the holiday feeling has been abroad in the country. As a consequence the demand upon the time of the Council has not been so great. We have not, however, perceived any slackening in the demand for special committees to consider some very important trade matters. The decisions at which these committees arrive will have a great influence upon the future of the trade, though it would be premature to give any indications of the matters under discussion at the present moment. The trade, however, may rest assured that full particulars will be announced as soon as possible, when the whole of the work is completed.

The trade has every reason to thank the Council for the position in which it finds itself to-day, for had it not been for the persistent work of the committee appointed for the special purpose of dealing with the National Service Department in the matter of securing the few employees left to us, there would in all probability have been a considerable further drain upon the attenuated staffs employed to-day.

It was not easy to get a promise to put process engravers upon the list of "reserved occupations," but the Council felt that the trade had done so well in the matter of numbers given up to the army, etc., that it resolved a determined effort should be made to keep those left to us. Hence

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a small but very representative deputation was appointed to interview the Department and to urge the claims of our trade. This they did with so much effect that the powers that be were really impressed with the claim made, but of course would not commit themselves. They must give the matter consideration. The need for men was so great, and there were one thousand and one reasons why the request should not be granted. Still the deputation, while admitting all these matters, placed other views before the Department, for there are two sides to every question, and at length the business side view was made so clear to the authorities and with such effect that careful consideration was promised.

If the Department expected the matter to close with this promise they were mistaken, for those in whose hands were the negotiations were fully determined to do the best possible for the trade, so kept the matter moving until, in due course, they received an assurance that their request would be granted, but that nothing further could be said until the new list of reserved occupations was published. The result of it all is that process engraving is fully expected to be on that list when it appears, and the whole of our remaining staffs will be protected, and we shall be enabled to carry on our businesses without immediate anxiety on that account.

Further consideration has been given to the question of industrial reconstruction under the Whitley Council Scheme, and the Council, together with the officials of the Men's Society, have the outline of what is proposed to be a complete scheme under discussion. Both sides are looking at the matter from every point, and in view of its great importance, and considering the effect it may have upon the trade

for years to come, the subject will need the greatest care and mature consideration from the view of both employers and employees before it will be safe to launch such a scheme. When it is launched it is hoped that it will be so effective that both masters and men will give it a very hearty welcome and will look to it to be of the greatest good to the trade.

At one of our meetings we had the pleasure of a visit from one of our members from the far north. He had many things of interest to say to us, and wanted information re many things relating to the work of the Federation.

The President was at his best in assuring our visitor of the welcome of the Council and in explaining the various matters referred to, and answering the queries raised. Altogether it was an interesting interview, and one the Council feels will do a great deal of good. It would be an exceeding great pleasure to the Council if other members coming from the country could make their visits coincide with the weekly meetings, and would pay us a visit. It would do us good and we think they would go away with an enhanced opinion of the Federation of which they are members.

The Ministry of Labour sent a communication to the Council suggesting that one of its members should be appointed on the local Advisory Committee re returned disabled soldiers. This the Council proceeded to act upon, as a feeling was expressed that process engravers were not represented as they should be on this body, and that it was essential that someone conversant with the trade should take part in the matters that come up for discussion thereat.

The question of the supply of metal has been engaging the careful attention of the

Council, and especially of the Metal Committee. To say that the outlook is gloomy is putting it rather mild, for while we do not wish the trade to take a too serious view of the position yet it is incumbent upon every process house to economise in every way possible. The quantity of metal immediately in sight is exceedingly small, and it is impossible to say how soon it will arrive in this country, for practically all our supplies come from overseas. True, efforts are being made to produce rolled sheets in this country, but progress is somewhat slow and it is within the bounds of possibility that the supply may be exhausted before further shipments arrive.

Every effort is being made to induce the authorities to hasten our further supplies, and they have promised to help us in any way they can, but when every ship is needed for soldiers and food, it is quite evident that copper and zinc for process engravers must take a back seat, but whatever the outcome may be the trade may rest assured that everything possible is being done, and that grumbling will not help matters at all. The only thing that can help at all is economy in the use of the metal on hand.

There have been several grumbles at the system of rationing metal to the various houses, but we think those houses who complain find it very much easier to do so than to suggest an alternative scheme that shall be more fair or successful than that adopted by the Council. There have been many ideas put forward, but every one of them fails at some very crucial point, and after many months' work it has been shown that the system adopted by the Council is the only one that can give anything like a fair ration. Not that it gives any one house all it

requires, but it does give every house its fair share of the metal that comes to hand, and perhaps the truest test of the fairness of the scheme is the practically universal complaint that no member is getting as much as he requires. Where everybody is short it is evident there is but one course open—that is economy.

Questions re charging for various kinds of work are still coming to hand. It seems surprising that so many queries could be raised seeing such a complete price schedule has been issued, but so it is. There is evidently very much thought being brought to bear upon the production of the most effective illustration, and it is matter for congratulation that so many are busy endeavouring to produce pleasing, though perhaps somewhat complicated, effects. Still it makes for good business and enhances the prospects of process work when peace once more reigns over the world.

The Royal Photographic Society.

IN view of the forthcoming 63rd Annual Exhibition of the above Society we understand that applications for space have been sent to all previous exhibitors, but that some of these forms, from causes that may easily be understood, have been returned to the Secretary.

The great upset in the private as well as the business world occasioned by four years of war may easily account for many removals, etc. The Secretary will therefore be exceedingly pleased to hear from anyone who would like to have an application form, and especially will he be pleased to hear from old exhibitors whose forms have not reached them.

The Industrial Reconstruction Council.

THIS Council have just issued their first half-yearly report and express therein general satisfaction at the progress already made. They say that "there is general recognition on all hands of the need for organisation. Trade Associations are experiencing a great accession of membership, and workers are flocking into their trade unions. This strengthening of associations and unions is almost entirely due to the belief that joint bodies will be formed, and it is perhaps the most striking practical result of the work that is being done at the moment.

"The work of the Ministry of Labour in promoting Joint Standing Industrial Councils, and of the Ministry of Reconstruction in connection with Industrial Reconstruction Committees, appears to be reaching out over the whole range of industries, and the prospects of the early establishment of a general joint advisory system for Government purposes seem to be extremely bright."

As might be fully expected, it is not every employer or every employee who is thoroughly convinced of the value of the organisation, consequently the Council say they notice "with regret a tendency among employers in certain quarters to restrict the function of joint bodies to what are known as 'Labour questions.' These employers in our view fail to realise the added strength which they could secure by co-operation with labour in any future discussion as to Government activities in connection with their trade. The Council have issued a manifesto dealing with this point and claiming that

the Government should in all trading matters consult only joint bodies. If discussions are confined to 'Labour questions' the main object of the Joint Industrial Councils will be sacrificed."

The report then proceeds to point out that "there is still a great deal of work to be done in the education of the public as to the true needs of industry and the real functions of Industrial Councils, and this is work to which the I.R.C. is devoting its whole energies and attention."

An important series of Conferences has been arranged and will be held at 6 p.m. in the Hall of the Institute of Journalists, at fortnightly intervals, alternately with the lectures at the Saddlers' Hall, of which particulars have already been published. The first of these will be opened by Mr. Robert Wilson, of the Ministry of Labour, on Tuesday, September 10th, with an address on Works Committees. On September 24th the subject will be Trade Boards and the speaker Mr. J. J. Mallon, of the Anti-Sweating League. The other conferences will deal in turn with Interim Industrial Reconstruction Committees, The Place of Conciliation and Arbitration in the Whitley Scheme, Women in Industry, The Trade Union of the Future, Functions of Industrial Councils, and Restriction of Output. No tickets will be required.

In conclusion the report says: "After six months' work the Committee are more than ever convinced of the enormous possibilities of the movement, and of the urgent necessity for realising some, at least, of the ideals for which the Council is striving before the actual peace period arrives."

Musings on Process.

By T. E. James.

IT would be an interesting study to follow the fortunes of the process engraving industry from its inception to the present day, that is, of course, supposing a chronicler could be found who possessed the necessary knowledge and experience, with the ability to put that information into a readable style.

It is evident that such a narrator must of necessity belong either to the employing or employed section of the craft. Consequently it seems more than probable that his views and conclusions might be tinged by his predilections for either the one side or the other.

It is a far cry from the days when process houses could charge 2/- or 2/6 per square inch for an ordinary half-tone portrait. Those days have long since passed away. Yet there are those still in the trade who look back upon "the good old times," the days preceding even the advent of the trade schools and polytechnics—days when the "expert" etcher could demand and obtain his £4 or over £5 per week, and when every worker felt that he and he alone knew the best method of producing a required result, and jealously guarded his so-called secrets. Days when men "invented" methods and processes, and exploited the unwary, frequently securing high prices for useless formulas. Those were the days before etching machines were heard of, and the Levy screen was in its infancy, and routers, bevellers, and planers were unknown. Yet with all these disadvantages many workers could manage to turn out some exceedingly good work.

Houses who had the good fortune to have

workmen who were capable of producing the best work were, of course, greatly envied by those who were less fortunate, and as first-class specimens were rare, and good work was rarer still, it goes without saying that when a really good specimen was produced it was considered very valuable as showing the high standard of the work of the house in which it was produced; and as their proofs were the chief means by which new business could be procured—reputations then not having been made—it was, of course, greatly to the interest of every house in the trade to get a collection of the best proofs possible.

Consequently the temptation to procure them in any way possible sometimes seemed quite irresistible, so that it was no rare thing to be shown the same proof by two or three different workmen as their own personal work, or even by two or three different houses as the production of their firm.

The writer recollects an amusing incident of those days in which a very beautifully vignettted portrait figured. It was shown him by a reputable firm of process engravers as a specimen of their own work, and they invited him to give them a trial, and promising to give a reproduction equally good in every respect, at, I think, one shilling and sixpence per inch: a remarkably low price at that time.

A few days later I had occasion to call upon another house who advertised themselves as process engravers, in order to consult them respecting some work they had in hand. During our conversation the manager asked me if I had seen the latest

specimen of their work. My reply being in the negative, he took from his portfolio a proof which turned out to be from the very same plate as that already shown me by the other house. But stranger still, about a week later the representative of a third house showed me the self-same specimen, jealously guarded and fastened in his album of specimens, and quoted me that quality of work at 1/- per square inch. Which of the three firms really produced the plate, or whether either of them did, I never knew, but the incident shows how in the very early days houses and men preyed upon one another in a manner little to their credit.

The drop from 2/6 per square inch to pre-war prices has of course enormously increased the demand for process blocks, and has to a great extent been brought about by the mechanical appliances now used in their production, but it is to be feared the main cause of the slaughtering of prices was the want of an organisation on the part of the masters as well as on the part of the men, and the absence of any attempt at co-operation between the employers and employees.

It was taken for granted that if a house succeeded, or thought it succeeded, in perfecting its methods of production, by which it considered it could produce cheaper than any other house in the trade, and chose to divide this saving with the customers, it was at perfect liberty to do so and no one could have any cause of complaint, as the house by drawing to itself a larger bulk of business would be doing itself a good service and securing a larger profit, and at the same time helping its customers.

But has this ever been the case? Can any process house so organise its business that it can produce at a much lower cost

than its competitors? The proposition is very much open to question, for conditions in process houses alter almost from hour to hour, thus preventing any real organisation of the day's work.

But beyond these reasons is there not another and greater cause for the fall in prices, viz., that of insane competition upon price only—fostered as it has been by so many customers who cared only for price and put quality and service altogether out of the question. Houses started in business with limited capital with one or two good customers, perhaps personal friends, who kept them supplied with pretty nearly as much work as they could reasonably produce, in addition to other orders that came to hand from time to time; but the days came when those one or two accounts ran low in orders and the engraver felt the pinch, so he went out into the market and quoted low prices in order to tempt new customers to place orders with him, and so deprive the house already producing the work of a continuance of the same, he promising himself that when he once more got busy with his old accounts he would drop the cheaper work and revert to that at higher prices. But alas! the disillusionment came. He found he had built upon a quicksand, and having once commenced cutting prices he had to continue on those lines, with the result that eventually he found there were no higher prices, for he had been compelled to drop all to the lower levels, doing both himself and his competitors an injury, for it would seem that experience teaches that once a house commences cutting prices it is practically an impossibility to retrace the path and get back to the old level.

It appears as though it took the greatest war in history to teach process engravers,

both employers and employees, how necessary it is to draw together and find in hearty co-operation and mutual confidence the solution of the problem of price and wages; consequently we see the workers' union now getting into its fold practically every employee in the trade, and at the same time nearly 100 per cent. of the masters combining in a federation for the purpose of securing a fair price for their production, and to enable them to pay a fair price to their employees, for previous to the war along with the reduction in price to the customer there went on another process, that of lowering the pay of the workmen, so that the men doing a particular portion of the work which at one time, say 15-20 years ago, was paid for at the rate of £4 to £5 per week, were happy if they, just previous to the war, could procure 2/10/- per week, in fact they rarely, if ever, asked for more. Now, why this change? Was it because of the surplus number of workmen in the trade? There was no evidence of such a superabundance, for it was nearly always as difficult to get really first-class workmen as it was 15-20 years ago. It is true there were good moderate men, men who can always command the Trade Union rate of pay, but where were the high-class men who could turn out the best work in a fairly short space of time, and demand a wage in proportion? They seemed to be few and far between. WHY?

Is the answer to be found in an article in a recent issue of this magazine, viz., that the blame is on the shoulders of the men themselves? In a highly artistic trade such as this, where there is plenty of room for individuality, every man should use his best endeavours to make himself thoroughly master of his portion of the art, and make up his mind to give the

best day's work possible—for there must not be any "ca-canny" methods—and then demand a wage equivalent to the value of his output. There are plenty of houses who are looking out for first-class men, and from personal experience I am persuaded that should any worker, realising in himself that he can attain to higher proficiency in his work, determine to do so, he would have no difficulty in finding a position and receiving pay equal to his ability.

I am quite aware that men who stand out head and shoulders above their fellows are frequently marked men who meet with but scant appreciation on the part of their fellow workmen, who not infrequently put every obstacle possible in their way in order to check their progress, for there is no doubt much too good reason to believe that what the writer of the article referred to says about taunts and quips has too much truth in it.

Has not the day arrived when the Trade Unionist should recognise the fact that all men are not equal, and that his fellow workman, who is sufficiently ambitious to make himself a better workman than the average, should be encouraged to forge ahead and so be able to demand and secure a better wage than his fellow, free from the petty annoyances and irritations with which he is so frequently met in his attempt to secure the results of the superiority of his work, or methods, or both? It may not be possible to do this in all trades, but in such a highly artistic trade as process there is surely plenty of room for individuality, and it should be encouraged, and we think it would be found that the employers are ready to encourage it if they are only backed up by their employees and the employee by his Union.

British Photographic Chemicals.

BEFORE the war the manufacture of the principal photographic developers was one of Germany's monopolies due to the fact that Germany so largely controlled the coal tar and dye industries, and that these developers are derivatives of coal tar.

During the war it was essential that there should be adequate supplies of developers for the increasingly important part which photography was to take in modern warfare, and in diverse work of national importance. Johnson & Sons, of Finsbury, commenced the manufacture in the Autumn of 1914, and were the first to produce these chemicals on a large scale. The following, which are the most important and of the greatest value in photography, are now being produced :—

Amidol.—The developer for bromide papers.

Paramidophenol.—A developer and a base for pharmaceutical chemicals.

Metol.—The most popular and universal developer for plates, films, gaslight and bromide papers.

Glycin.—A developer used in process and technical work, and for time and tank development.

After the war the manufacture of these developers as a British industry from British coal is now firmly established by Johnson & Sons, on a sufficient scale to supply the demand of the Empire, and to compete in the markets of the world.

The other chemicals manufactured by this firm are : Ammonium molybdate, acid molybdic, molybdic anhydride, copper nitrate, iron perchloride, and silver proteinate.

All these chemicals previously to the

war were almost entirely imported from Germany. The molybdenum salts are particularly interesting as being essential in the analysis of steel—the metal of war.

Johnson & Sons invite enquiries from large users of photographic and other chemicals required for scientific, technical or industrial purposes.

✓Cementing Machines on Floors.

THE securing of machinery on foundations, as described hereafter, offers the advantage of cheapness and efficiency, and is especially adaptable to loft floorings for providing a very solid foundation. An excellent means for this purpose is found in the glycerine and litharge lute that combines iron as well as Portland cement or any other flooring material firmly with the iron frame of a machine. This cement is not susceptible to oil, water, acids and alkalis, etc., and is changed within a short time into very great and lasting firmness. The cement is prepared by a mixture of new glycerine and litharge powder in the proportion of $\frac{1}{2}$ litre glycerine and 5 kg. litharge, to be well kneaded until the mixture begins to harden ; this cement thus prepared must be used without delay, while in a soft and pliable state. The surfaces to be combined must be coated with glycerine and the cementing must proceed soon thereafter. Since the mass hardens rapidly, within about half-an-hour, the mixture has to be repeated anew for every operation.

For counteracting heavy blows or thrusts or shaking, it is advisable to underlay the frame with thick pieces of felting, to be impregnated with two parts of melted colophony and one part of oil.

Ilford Rapid Panchromatic Plate.

MESSRS. ILFORD, LTD., have accomplished what until now has seemed to be an unattainable feat—the producing of a rapid plate so sensitive to all colours as to give correct colour values without the use of a compensating screen.

We have just had the opportunity of testing the new plate, and find it to be, as was to be expected, clean in working, free from accidental defects, rapid in development and generally as perfect in all the ordinary qualities as a plate can be.

The plate is a rapid one, but as with all similar plates, its speed varies with the quality of the light to which the exposure is made. To diffused north daylight at noon on a sunlit day in June its speed was found to be about 100 H. and D., or 150 Watkins, while the speed to the light of the standard candle came out about 350 H. and D. The plate is sufficiently rapid to allow of satisfactory instantaneous photographs being taken through the yellow filter recommended by Ilford, Ltd. in 1/25th second at f/8 on a bright day.

Tested in the spectroscope, the plate gives a chart showing an almost straight line from 400 to 585. We say almost a straight line because it is slightly, very slightly, curved, and there is faintly perceptible, when a V-shaped slot is used, a slight depression from 440 to 450, but this is so slight as to be practically invisible in the print made from the negative.

Beyond the limits mentioned the curve becomes steeper until lost in the ultra-violet and infra-red.

Experiments were also made by exposing behind a step wedge through red, green and blue filter screens, which together embraced the whole range of the

spectrum. The colours were found to be reproduced so nearly in their visual intensity that for ordinary purposes no filter would be required.

Tests on everyday subjects confirm the spectroscopic reading. Two or three plates were exposed on the view over Russell Square Gardens from the office window, and showed excellent rendering of the varied tints of foliage and the distant terra-cotta coloured buildings. A plate exposed through a yellow filter of medium strength was practically indistinguishable from those exposed naked.

One word of caution may here be given: like all colour sensitive plates the new panchromatic gives contrasts very readily, and so although a landscape in diffused light would be well exposed in the time given by Watkins' meter, it is desirable to double that and shorten the time of development when the scene is illuminated by bright sunlight, otherwise the contrasts may be found to be excessive, and the same thing applies to the photographing of flowers.

When copying paintings showing brilliant colour it may be necessary to employ a yellow filter. The makers suggest p. nitro-phenol sodium salt, but Filter Yellow K of a deep strength free from any mixture of red has, in our hands, given perfect results on a carefully measured colour chart.

It may be, of course, that the colours in the picture do not require to be translated into corresponding shades of monochrome, and the photographer who is accustomed to such work will know how to vary the colour filter to get the result he wants.

The ratios for three-colour work are

THE PROCESS MONTHLY.

given as—blue 1, green $1\frac{1}{4}$ to $1\frac{1}{2}$, and red 1.

In copying glass ware, bright metal or other subjects reflecting white light from the surface, it may be desirable to employ a strong filter, as above mentioned, to get rid of the glare caused by the excess of ultra-violet light and to reduce the reflections to just such an amount as are seen by the eye, and not to conceal entirely the underlying shadows.

From what has been said it will be seen that the plate cannot be worked in red or orange light ; it may be safe to do so in the light passing through the deep green windows in the Society's dark room lantern, but we have preferred to fill the slides, develop and fix the plates in total darkness. The card issued with each box of plates gives the time of development at various temperatures and has been found quite reliable.

Messrs. Ilford, Ltd., are to be congratulated on their latest achievement.—W.B.F., J.M., from *The Photographic Journal*.

Vitrified Photography.

THE use of photography in the ornamentation of china, earthenware, glass, etc., has frequently been attempted, but with a very meagre amount of success, the processes proving non-commercial, owing to the intricate methods used to procure the desired results. They have been interesting chemical experiments, but their practical usefulness has been very small indeed.

There has, however, just been placed on the market a new process produced by Mr. Louis Crabtree, who claims to have succeeded where all others have hitherto

failed. He says : " The vitrified photograph is no longer the dream of the expert, but an accomplished actuality, as easy and certain of production as the well-known P.O.P. print."

This vitrified photograph is a photographic positive produced on the glazed surface of china, earthenware, etc., etc., in such a way that when it is fixed in the ordinary potting kiln it becomes incorporated in the glaze of the article being baked ; it therefore becomes as permanent as the china itself.

A pleasing feature of the process is that it is not confined to ordinary black and white pictures, but also in a carefully selected range of the choicest art colours. Further, the subjects can be produced in colours so that fruit and flowers, birds, landscapes, etc. can be reproduced in their natural colours by this process, and those who have seen the reproductions pronounce them to be the most beautiful examples of the photographic art possible, or in the language of one of the highest photographic authorities in the U.S.A. : " It is the last word in colour photography."

Specimens of the work have been submitted to the highest photographic authorities in the United Kingdom, and have been pronounced to be the most beautiful examples of the photographic art producible by any process.

The fields in which the process will become available are almost innumerable providing the price can be brought within reasonable dimensions, though we do not anticipate it will in any way affect current methods at an early date. As an example of prices required for this class of work we may mention that the cost of a portrait by the process produced on a china plaque varies from one to twenty guineas.

Enlarging from Prints.

ONE very successful exhibitor makes his large prints from small ones, instead of enlarging from the negative. His first business is to get a small contact print exactly as he wishes the large one to look: and, as this is only small, it is not a very costly business to make one after another until the result is just right. The small print is on a glossy self-toning paper, and is made of a brown and not purple colour. It is squeegeed to glass and photographed, through the glass, the new negative being three or four times (linear) the size of the original print. The photographing is done out-of-doors in a very strong direct light, but not in actual sunshine. The resulting negative shows very little sign of granularity, none at all in fact, and can be printed by contact without any further work on it at all. The method is particularly useful for landscapes which have had skies printed in; and, generally, for subjects which call for some degree of dodging or shading in making the original print, as this dodging has only to be done once for all.

✓ Half-Tone Printing on Envelopes.

WE recently had occasion to print a half-tone of a factory building on the back of about seventy-five thousand envelopes, a portion of them being of the "window" variety. The envelopes were all size ten and the half-tone about three and three-quarter inches high, so you will see that the height of the

envelope was pretty well occupied by the cut. We were rather at a loss how to handle the job so as to have the overlapping portions of the envelope show as little as possible, and there was the question of lumps in the gumming of the flaps to contend with. We ran the entire lot from one nickel-plated electro with practically no trouble from either source, and this is how we did it.

Heretofore when we have had occasion to run a half-tone on an envelope, we have used a thin sheet of rubber as part of the packing, but while it helped it has never been entirely satisfactory. For the job I am writing about, the pressman took a piece of chamois skin and used that in the place of the rubber. Besides the chamois skin he used two oiled sheets of fifty-pound stock and a draw sheet of ordinary oiled tympan paper.

After running a little more than twenty-nine thousand envelopes, it became necessary to lift the job for a time so as to have the machine for other work. The tympan sheets show very plainly what the packing used saved us, for while the gum marks are conspicuous enough on them, on the envelopes there was no sign of a mark. Later a new packing was put on and the job finished. Towards the end of the run an extra large piece of gum was encountered and this made so big a hole that it was necessary to put a patch on to offset the depression. The cut was considerably "pockmarked" when we got through, but the envelopes did not show it.

We are telling you about this, thinking it may be of interest to your readers. Pass it on or not, just as you see fit. The out-look envelopes were those with a thin piece of transparent paper pasted over a cut-out window.

O. R. THOMPSON in *The American Printer*.

THE PROCESS MONTHLY.

MESSRS. GATCHELL & MANNING, the well-known process house in Philadelphia, continue to send out some of the best advertising that comes to our hand. Practically every piece that arrives bears the impress of a well-thought-out scheme, in which the hand of the writer is that of an artist in his profession.

Whether it be their beautiful monthly entitled "Etchings," or a folder showing their one-, two-, three- or four-colour work, or simply a monthly reminder in the shape of a calendar, they are all equally good and bear strong testimony to the care and thought put into all their work. It would well pay other process engravers to carefully study the advertising of this firm.

PROOF, being some recent examples of designing, engraving and printing in two or more colours, produced by the Gazette Printing Company, Montreal, is a large quarto publication showing specimens of this company's work in colours and black and white. While there is nothing startling either in the treatment or reproduction, yet there is evidence of great care and attention to finish in the specimens shown herein. The designs are good and well executed, and the colour work shows the subjects to great advantage. The Gazette Company evidently are in a position to successfully undertake any of this class of work that may be entrusted to them.

THE HOUSE OF HUBBELL, whose monthly, "Individuality," still finds a welcome among a large circle of business men, continues to impress upon all and sundry the value of its organisation, and proves conclusively its ability to produce just what its clients desire, even though it may be different from what they think they need. It takes a high class organisation to be able to show a customer he is on the wrong track, and to so convince him that he accepts that offered him instead. It is here that Hubbell's claim to excel. Their vast experience brought to bear upon a publicity campaign helps them to a true estimate of what is needed, and this experience they place at the client's disposal with a mutually satisfactory result.

IMPRESSIONS is the title of a monthly booklet issued by the Patterson & White Company, of Philadelphia, and it is published in the interests of good printing—their own in particular—and it is evident that the firm live up to the idea set out in their publication, for it is produced in an exceedingly attractive manner, well printed on good paper, with type very carefully chosen, so as to secure the special effects desired by the appeal. An exceedingly good piece of sales promotion work, and will, without doubt, bring them very excellent returns.

THE KLEARFLAX LINEN RUG COMPANY send us two of their booklets written for the purpose of interesting the public in the art of decoration, and very skilfully and success-

fully have they carried their idea into effect.

How to decorate a room gives a series of talks on colour values and combinations that show a deep insight into the true value of colour in the decoration of the home, whilst "The Rug and the Colour Scheme" carries the argument much further, and moreover gives a series of fifteen colour plates emphasising the arguments adduced in their booklets.

Together they form the most complete and effective treatise on the subject we have yet seen, yet they are not too large for the pocket. A good idea, thoroughly well carried out.

RETROSPECTIVE, a general sketch of the development of the routing machine, by Vernon Royle. An exceedingly interesting treatise showing the evolution of the routing machine from its inception to the present day. It is beautifully got up and thoroughly well illustrated, and though it consists of forty pages only, it has a fascinating story to tell and it tells it exceedingly well.

Messrs. Royle & Sons, of Patterson, New Jersey, U.S.A., will be pleased to send a copy to any reader interested. We hope to give some extracts in a future number, showing illustrations of the various motors, etc.

A LITTLE booklet, entitled "The Welding Test," just issued by Barimar, Ltd., a London firm of scientific welders, which has built up an almost entirely new business of metal fusion for the repair or re-creation of fractured parts of machinery, deals interestingly with a highly technical subject in simple language. It shows how one firm has brought back into commission more than 20,000 British derelict machines now engaged on national service. Many of the delicate processes by which complete metal fusion is brought about were practically German preserves in pre-war days. The booklet will be read with interest by many people who follow approvingly the growth of British industries in which the alien formerly flourished. To any reader who possesses fractured machinery a copy will be sent post free on application to Barimar, Ltd., 10 Poland Street, Oxford Street, W. 1.

THE BOOK OF BETTER BUSINESS is a well-illustrated and well-produced quarto publication dealing with art metal office furniture, the result of thirty years' study of the subject. The whole scheme of the publication is good. It has been well thought out and the scheme of illustration is excellent, showing the articles in their most enticing condition.

The editor, engraver and printer are all alike to be congratulated upon the success achieved, for without doubt this is one of the best publications of its kind. The one blemish we note is in the size of the type page. This, in our judgment, has been made too large, and the consequent encroachment of the printing on to what should be part of the margins, is, we think, the one blemish in an otherwise high-class production.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

Your Employees' Time and its Value.

IF the manufacturing photo-engravers could get this one thought firmly into their minds, understanding it fully and realising its meaning, most of our troubles would be over and the millennium would be at hand.

Here it is : The average value of your employees' time in the photo-engraving department is about one penny per minute. You have got to sell your product at a price that pays for the time and the materials consumed, plus whatever amount represents your profit in the transaction. If you sell at a lower figure, you lose money.

Not one of you would think of permitting anyone in your employ to go to your cash register or, what is equal to it—let us say your safe, for instance—and take out different sums indiscriminately for his own use or to give them away to someone else. Such a practice would be ruinous, and if it took place in your office you would ring for the police as soon as you discovered it. Money is the standard of value and everyone can understand what it means when he loses a £1 or any other sum. To lose an article that is worth a £1 does not seem so much of a loss. Now when you come to an element like time, which is something no one can see, feel, hear, smell or taste, the loss of time does not carry with it a direct loss, such as would be experienced

if that much money were forcibly removed from your pocketbook.

When you hire workmen on the basis of 80/- per week for forty-six and a half hours' work, you are buying forty-six and a half hours of labour at nearly 2/- per hour. That is the amount of money you pay for the workman's time and it is up to you to keep him busy. Every minute of the forty-six and a half hours thus paid for which for any reason cannot be employed in the direct production of the saleable profit is lost, and that portion of the forty-six and a half hours which is sold in the shape of the finished product must be sold at a price that covers the non-chargeable time. That raises the cost per hour materially. Now when you stop to consider that you have to furnish machinery, equipment, rent, heat, light, power, executives, salesmen and all other items that go into a business, and when you spread this expense in its exact proportion on the saleable hour, you can readily understand when you pay a man 2/- per hour on the basis of a week's work, the total cost of every saleable hour is at least 4/- exclusive of materials. You must sell everything that this man produces at a price that pays you at least 4/- per hour for the labour expended, plus the cost of material and the percentage of profit, or you take a loss.

What Does it Cost?

THE experience of practically every trade to-day goes to show how great is the need for accurate cost findings—not merely as a hobby, but as essential features in the every-day work of the firm. In fact, the foundation stone of the whole fabric upon which can be reared a sound and businesslike structure.

The following thoughts taken from a book by Ernest. Henry Gaunt, Secretary and Treasurer of the Optical Manufacturers' Association, apply with equal force to the photo-engraving business :

"The science of accurate cost finding and accounting is so simple that it is surprising that business men do not accept modern methods more quickly. Probably the reason is that most of them have been "brought up" in the factory and dislike what seems like 'red tape.' Most business men keep an accurate ledger account with customers. They also watch their cash account with the utmost care."

"An accurate cost system shows the most profitable sales and the least profitable sales. Such a knowledge will guide sales policy and even the policy of building up your business. An accurate cost system pays for itself many times over. It is an investment, not an expense. It is a mechanical plan and therefore should be classed and thought of as a machine."

"There are many arguments in favour of accurate cost keeping and not a good argument against it, even in a non-competitive business. And in a highly competitive business, such as ours, where we have nothing to sell except labour, skill and service, the argument for the abolition of the rule of guess for the rule of accuracy becomes the more apparent."

"Progressive business men have known

that accurate cost finding must come sooner or later. But it will come sooner if they will help their competitors to see the light before they go bankrupt. One bankrupt set of concerns is sure to be succeeded by another equally ignorant set, and price-cutting continues. Why wait in the hope that after many years competitors will know their costs and cease to muddy the waters? The campaign for accurate cost finding must proceed until the percentage of business men who know their costs and of those who do not know them, is entirely reversed. When that time comes we may have price-fixing that will benefit manufacturer, distributor and consumer. Under the pressure of war necessity it is already being carried out in Government purchases of war supplies. It may be continued in other lines when peace comes, if business men will put themselves in a position to co-operate with the Government. That means that they must immediately install a modern, accurate system of cost finding and keeping."

"Manufacturers, while helping themselves directly by a modern, accurate cost system can indirectly bring about a change in public opinion so that it will be less suspicious of business men. Owing to the previous action of Big Business, all business men are now suffering from the reaction or extreme swing of the pendulum of Public Opinion. The return to a normal state of Public Opinion will probably be hastened by the war experiences with Government price-fixing. Trade associations should be allowed to fix a fair price on every article sold by their members based on accurate costs. It is up to business men to bring about this changed attitude by first of all seeing to it that everyone in their line of trade has a

modern, accurate cost system, and secondly, by encouraging national legislation which will give the Federal Trade Commission power to permit fair price-fixing. It would manifestly not allow price advances unless they were based on accurate cost figures, and make price cutting in the production or selling of goods a subject of investigation by the Federal Trade Commission."

"Business will be favoured or encouraged only when such encouragement reacts chiefly to the benefit of the unorganised consuming public. The business man must recognise that his interests will always be considered as secondary. He cannot benefit at the expense of the whole. His greatest profits and rewards will come when he renders the greatest service to the public."

"It is necessary to have all groups with common interests well organised. At the same time members of trade associations, labour unions and the unorganised consuming public can learn to recognise and provide for the legitimate interests of each group without harming the best interests of all. No policy which hurts any one group which is working for the interests of the whole group can ever be permanently successful.

"The time has passed when any one man, or any one group, can benefit for long at the expense of the larger group. Captain Kidd would not succeed to-day. Neither will the pirates of business, the extremely selfish individualists, succeed to-day so much as they have in the past.

"The future development of co-operation depends upon the recognition by all groups of the fact that the interest of the consuming public is paramount to every other group. But the consuming public must also be taught that manufacturers and merchants perform a function that

cannot be dispensed with. If manufacturers and merchants show that their intention is unmistakably to render service and to ask no rewards or profits except for rendering service, they can depend upon fair treatment and they will be allowed to retain their useful function without molestation. If labour unions show that they have no intention of asking for anything against the interests of the consuming public, they will be allowed to pursue their legitimate ends. The laws protecting individual liberty and property are not likely to be revised in favour of any class, except when such revision will help the 'ultimate consumer.' All subordinate groups, therefore, such as trade associations and labour unions, must first convince the consumer that they are receiving no profits or wages without rendering service. Then they will be in a position to educate the consumer to fundamental economic facts."

Dark Room Hints.

A WET negative should never be stood on a dusty shelf. The dust is picked up by the water and will be found to travel some distance, an inch or more, up the film.

Ordinary white earthenware pitchers are the most convenient for making up quantities of solution. In buying them, always make sure that your closed fist will go right down to the bottom of them.

Dark room pins with glass heads are better than drawing-pins or thumbtacks when extemporizing a dark room.

A strip of flat wood $\frac{1}{4}$ inch thick, 1 inch or $1\frac{1}{2}$ inches wide, and as long as the width of the largest dish used, will be found very convenient. Placed under the dish, it is possible to rock it with one finger.

A. E. Dent & Co.'s Transformation.

PASSING through Broadway—not New York—the other day, we noted unmistakable signs of a removal that seemed to hail from the



MR. A. E. DENT.

premises of a process-engraver — and who, once he has caught the delightful perfume of a process house, can fail to recognise it, even at a distance?

So we followed the trail back to its source, and found it hailed from the home of A. E. Dent & Co.'s process engraving plant, one of the oldest houses in the trade.

Our curiosity being aroused, we proceeded to interview the head of the firm, in an endeavour to learn the reason for the change that was evidently taking place.

We found Mr. Dent, as usual, quite at home in the hustle and bustle that was going on, and as he seemed quite pleased with himself and everything around him, our fears were allayed, and we were more than ever curious to hear his story from his own lips.

Answering our look of surprise and questions as to his procedure, we were met with the reply: "What's doing, did you say?—why, we are making a good and strong move, at any rate that is our opinion. Dent's process blocks are removing from Broadway to East Street, Finsbury; the entire business—staff, plant and fixtures—in fact, our entire organisation—is being taken over by the Dalziel Foundry, Ltd., where in future 'Dent's blocks' will be produced upon just the same lines as they have been for the past twenty-three years, first at Clapham, then at Broadway."

"May I ask the reason for this change?"

"Yes! It has been a source of pride to myself that ever since the inception of the company, A. E. Dent & Co. have been one of the few firms whose directorate and title have remained unaltered, but four years of war worry, depletion of staff, and the sudden loss of my father, the senior director, in January last made me conscious of the need of a business partner with whom to share ideas and responsibilities. Moreover, in looking forward, it seems to me that only those firms with large and strong organisations behind them will reap the full benefit of the inevitable rush of catalogue and advertising work that will come immediately after the war, and as amalgamation seems to be the order of the day just now, you may realise how heartily I welcome the suggestion of Mr. Dalziel to join forces with his busy, up-to-date foundries."

"But why leave the old address; why not rather extend on present premises?"

"We have considered that matter, and while there is much to be said for keeping the old address where we are so well-known, and where we have been ever since we left Clapham, yet the process of time has brought us to the end of our lease, and though Dent's of Broadway is so well known, we have concluded that East Street offers more favourable ground for extension than is available here, and so with better accommodation we shall be in a position there to more than maintain our reputation for careful work."

The Dalziels of a past generation laid the foundation of a reputation for high-class engravings. It is therefore little

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THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. F. H. VAUS,
Messrs. Vaus & Crampton, Ltd.,
Kirby Street, London, E.C. 1.

Treasurer—

MR. EDWARD W. HUNTER,
André Sleigh & Anglo Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.

Telephone: 5596 Bank.

Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

THE holiday season having been in full swing has had its influence upon the process trade as it has on practically every trade in the country. As a consequence there has not been so great a call upon the time of the Council as in the days when business is in full flow.

Though the meetings have not been so frequent, being held fortnightly instead of weekly, they have been full of interest, and some important work has been accomplished.

The Council have been very much alive to the necessity of getting into the Federation the very few houses still outside its fold. In this they have had a fair share of success, for they have welcomed the decision of the largest of these houses to join with their fellow engravers, and to-day that firm is a full member of the Federation.

Some very carefully considered figures regarding colour block production have been laid before a Committee appointed to consider the present prices of that class of work.

Representatives of the majority of the houses producing colour work met for the purpose of comparing facts and figures with a view to testing the suggestion made by some that colour work at the present prices does not pay.

Statements were made by various members of the meeting giving the findings shown by the workings in their own establishments, and it was remarkable

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how uniform were the majority of the results. Of course, in certain portions of the work there was shown to be a remarkable diversity of attainment. Still, on the whole, it was found that there was a general agreement that on certain classes of work there was a distinct loss, and when the whole was averaged it was plainly shown that prices as per the present schedule for plates of less than forty inches were being manufactured at a loss. It proved a much more easy task to demonstrate that such loss existed than to find a fair and equitable method of preventing it in the future. Consequently much time was spent in the endeavour to fix prices, sizes, etc., that should be just to both the producer and consumer, the result being that the prices contained in the July, 1917, schedule were raised between 25 per cent. and 35 per cent. on blocks of less than forty inches. All work over and above forty inches will be charged at the new prices for first forty inches and then revert practically to the present prices for inches beyond forty up to 120, and, of course all work will be liable to the extra 40 per cent. occasioned by the abnormal conditions of to-day.

Another matter of great importance to the trade with which the Council has had to deal was the application by the Men's Union for an additional increase of 10/- per week for their members. The Council felt that so far as the prices of process work to our customers was concerned, the limit had been reached, and if further increase had to be made it would have a decidedly injurious effect upon the trade in general, and being so confident in their belief put the matter fully and plainly before the officials of the Men's Union and urged its careful consideration.

It was an unfortunate position in which

these officials found themselves. On the one hand their members were demanding an increase, which men in the allied trades had already arranged for themselves; on the other hand the employers were assuring them that the trade would resent any further increases in prices, which would be inevitable should they persist in the demand.

We understand that the matter was very carefully considered by the Men's Union, the result being that they pressed for the increase, and at a joint meeting of the officials with the Council, the matter was again fully discussed and in the end the increase was agreed to.

How it will pan out only the future can reveal, but the Council feel that we have now reached the breaking point so far as prices are concerned, and that it will need some very careful work to steer the trade through the very critical times immediately in front of us.

The increased pay given to the employees has of course to be passed on to the customer, and the question had to be faced as to the best method of doing this.

Various suggestions were made and duly considered, all of which had their merits, but few of them gave the necessary results required to meet the increase in the payroll as well as the increase in the price of materials, etc., etc., so after mature consideration it was decided to add 12½ per cent. to the present total of the invoices, making an increase of 40 per cent. over the prices as fixed on July 1st, 1917, together with the previously reported alterations in the price of colour work.

Further consideration has been given to the question of apprenticeship with a view to getting uniform arrangements existing throughout the trade.

The Committee in whose hands is

this work has already made an interim report which has been considered and eventually referred back for completion. When this matter has been fully decided the trade will be put in possession of the whole of the details.

The new List of Certified Occupations has now been published, and for the first time process engravers find themselves included therein. It may be that the protection is not of such sweeping character as some had expected, nevertheless it gives the trade a very fair share of protection ; indeed so much so that it will now be possible to carry on our work under conditions much more free from anxiety than has been the case hitherto.

The very hearty thanks of the trade are due to the Committee that has carried this piece of work through. They have done well, and have been of very great service to practically every process house.

It is no unusual thing for requests to be sent to the Council asking for information as to where workmen may be procured. No doubt many houses are working under very great difficulties, and the Council sympathise very deeply with those in such unfortunate positions ; but more unfortunate still is the fact that there are no workers known to be out of employment ; in fact there are openings throughout the trade that cannot be filled because there are no workers to fill them. Some members of the Council themselves need help that cannot be obtained. It is therefore an impossibility to give any reply to such enquiries that will be considered satisfactory by the recipients.

The Ministry of Pensions has requested the Council to circulate among the employers an appeal on behalf of the King's Fund for Disabled Soldiers, for subscriptions towards so worthy an object. These

appeals will be posted to every employer in due course, and there can be no doubt they will meet with a generous response.

Again and again questions re charging for difficult classes of work are considered, and wherever it is possible for a definite ruling to be made a suitable reply is sent, but it is remarkable how many varieties of combination can be produced ; in fact, there seems endless rivalry on the part of some advertisers to secure new effects regardless of price. This of course is all for the best so far as the trade is concerned, and we are quite pleased to see these progressive efforts, but it is quite impossible to fix prices for many of them that can be reduced to terms such as may be printed in a schedule ; in such cases the process engraver must fix his own price, and this he will undoubtedly do at such rate as will pay him for the thought and care as well as the labour put into such work.

Bolt Court School.

SPECIAL attention is called to the advertisement of this school in which is given the particulars of teaching that may be obtained there so far as it relates to process engraving.

We cannot too strongly urge upon all the young people now engaged in the trade to join some of these classes, so that they may fit themselves for future positions.

There can be little doubt that after the war there will be a great boom in process and everyone who has any knowledge of the trade will be eagerly sought for, and there will be many valuable positions open to competent workmen. Now is the opportunity to secure such training that will fit our young people for some of these positions.

The Technical Schools.

THE MANCHESTER COLLEGE OF TECHNOLOGY has commenced its Winter session of classes for process students, who have a good range of subjects placed before them, covering a four-year course of instruction. These are designed to give the student a thorough knowledge of the art in all its processes. Mr. Fishenden is chief instructor.

THE POLYTECHNIC classes have also recommenced and are held on Friday evenings, and may be found more suitable for those whose homes are in places that may be more accessible from Regent Street than from the City.

ST. BRIDE'S ACTIVITIES, as shown by specimens of the work of the students, give evidence of the value of the training given by the teachers and the ability of the students to benefit by the instruction given.

Notwithstanding the drain upon the elder students occasioned by the war, we consider these specimens of work are fully up to the mark that might be expected, seeing the ideals set before the students by the Principal, Mr. Ridell, and those responsible for the teaching given, and there is very much cause for congratulation that so much success can be obtained under such difficult conditions that obtain to-day.

Great praise is due to all concerned, and it is our pleasure to bear ample testimony to the success attending the work at St. Bride's.

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wonder that Mr. Harvey Dalziel is an enthusiast for good work, and his ability in duplicating blocks for colour work is well known throughout the trade.

The Parker mounting board, a household word among high-class printers, is manufactured at East Street, and Mr. Dalziel has just patented a machine for registering any number of colour plates so that a sheet of any size is ready immediately for the machine without any further adjustment. This also is produced at East Street, and it only awaited the advent of a process plant to make the works a complete whole.

"Do you go with the plant?"

"Oh, yes! I go as chief of the staff—one of the fixtures—and I may say I would not be out of it for worlds, and I am pleased to say that our employees are just as keen and enthusiastic as myself about it, and we are all looking forward to a bright future, as we shall be in a better position than ever before to continue the production of 'blocks that please the printer.'"

"What about the munition department—does that go with the process department?"

No. That will continue to be a separate business, and will be carried on 'for the duration' as A. E. Dent's munition department at our engineering works at Brixton, where we make parts of shells and aeroplane engines. What the future of that business will be time alone can tell."

ADVERTISING and a good front attract trade, but only the photographer himself can hold it.

Do the new thing; make the most of your fresh point of view.

*Photo-Engraving an Art, not Manufacture.**

By Stephen H. Horgan.

"**P**HOTO-ENGRAVING is a process in art, the produce of which is non-merchandise, etc.," was the decision of Judge Joseph F. Mulqueen of New York after an investigation of the subject for nearly a year. This decision has already awakened photo-engravers to proper appreciation of their work and will raise photo-engraving to its proper place among the graphic arts.

The writer was considered something of an artist and photographer before he took up process work forty-four years ago, when the art was in what might be termed a nebulous state. He has been a part of it since that time, so cannot help knowing something of the reasons why photo-engraving, the handmaid of all the arts, was not heretofore recognised more generally among the graphic arts.

The French have an important expression which gives the idea it is desired to convey: "Ars et Metier." Which can be translated: "Art and Manufacture." In France, articles are either art or manufacture. A manufactured article is one turned out largely by machinery, or that is a duplicate of a model. Those articles which are not duplicates but come from the hands of skilled artisans are considered art; and they may be a shoe, a coat, or the sleeve of a dress.

Our art, that of photo-engraving, is recognised as an art in France, and that it has not been held in such high esteem in this country is due to ourselves, discreditable as it may be to our intelligence to state it.

If we were to take time to go back through history and mention the names of the men who have contributed to bringing the art of photo-engraving to what it is to-day, the list would include distinguished philosophers, scientists and painters, none of whom ever thought for a moment of bringing machinery to their aid.

Beginning with Friar Bacon and John Baptista Porta, the philosophers who gave us the camera obscura, there are scientists like Sir Humphrey Davy and Sir John Herschel; scholars like Joseph Nicéphore Niepce, who made the first photo-engraving in 1824, and then a long line of artists like Daguerre, who made pictures in the camera, and our own S. F. B. Morse, painter, and inventor of the telegraph, who brought the daguerreotype to this country.

But to come down to our own time: It was the artist William Kurtz, in his studios now occupied by the American Art Association, New York, who gave us the first practical photo-engraving printed in three colours. Then we have to-day the great Bohemian artist-etcher, Karl Klic, who not only perfected the art of photogravure but gave us rotary photogravure complete in every detail, a production which is recognised by people of culture everywhere as among the greatest of the graphic arts, when done by artist workmen.

What injured our art in this country was that too many men with a little capital and no artistic taste or training, in one way or another got into photo-engraving as a business. Some of them, trained as

*Written for the *American Printer*.

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manufacturers in other lines, tried to apply manufacturing methods to our art. They failed, of course, and then tried to save themselves by underselling, thus dragging others down as well.

William Kurtz was an example of this. The photo-engravings he made were masterpieces of their time, but he lost his fortune in an endeavour to compete with those who were not artists.

These manufacturing photo-engravers found by experience that the sale of their product depended entirely on the artistic skill of their employees, so they were compelled to agree among themselves not to entice workmen from each others' employ, as the loss of a single artizan would at times imperil their business.

Publishers were the next and possibly the worst offenders in dragging photo-engraving down, and in their blindness they want to keep it down. Publishing also has too many men, without artistic sense or appreciation, who are governed by but one principle—how cheaply they can manufacture their books or magazines. At one time the illustrations of our books and magazines led the world, but publishers pitted engravers against one another until illustration has become as cheap and tawdry as can be sold. For example: Pick out a volume of the "Century Magazine" during the early nineties, when Mr. Kurtz signed his engravings, and compare them with a current issue and note the fall that has taken place.

In this connection the writer could recite personal experiences with publishers, when in 1881 he was introducing intaglio engraving. Some of the etchings he made then are in the art collections, but the sordid publishers drove him out of the business because he would not conform to their manufacturing methods.

The workmen are not responsible, to the same degree, for the low status given their art, for several reasons: In the first place, the employers who were at photo-engraving solely for the money that was in it took advantage of their artist workmen, who are proverbially bad business men, and kept them in competition with each other to find which one would work for the lowest wage, until they got them down to starvation wages, from which they could not raise themselves. Thanks to the union, this crime was stopped, but not until it had done an injury to the art from which it is still suffering.

The beggarly wages offered artists not only drove them out of the work but discouraged others from taking it up. The name "union" was made obnoxious by a truckling press to those with artistic instinct, and this kept many artists from joining the union in those days, an objection which no longer prevails.

Another thing that prevented the proper type of artists from undertaking the work for which they were naturally fitted was the insanitary character of the studios and workrooms which those greedy bosses maintained. This, also, the union has remedied. Besides this, the work stained the hands and destroyed clothes, so that some, with a false idea of what they termed refinement, were repelled by it.

In the writer's position as editor of the "Process Engraving" department of "The Inland Printer," during the past quarter century, it has been his duty to reply to queries from every country, and these two facts were always evident: Outsiders, unacquainted with the artistic nature of our work, have in conventions and in books accused us of less than ordinary intelligence, for the reason that

we did not standardise all our methods and work exactly in the same groove, when the fact is it cannot be done.

Secondly : These very queries and the varying opinions of correspondents prove this fact : that different workmen, given precisely the same chemical solutions and the same materials, will, from the same subjects, produce different results. This is proved again whenever an attempt is made to make duplicates of the same picture by the same workmen—they will never be twice the same. Each artizan puts into his part of the engraving all of the art he knows, and as no two men have the same art instinct the product is different and is consequently art, though it may not be as good art as we would wish.

Painters and sculptors, born with artistic talent, assert themselves without any schooling, and so it is with the photo-engraver—that is, the one who succeeds. He is at the work because it appeals to his artistic nature. Too often he is struggling along without art training. A few years ago the executive committee of the New York Photo-Engravers' Union called the writer into conference to decide which direction education for the apprentices at photo-engraving should take. After a discussion lasting well into the night it was unanimously agreed that art training was the first and most essential requirement.

Now that a learned judge has shown that our profession is an art it remains for us to rise above the manufacturing element that dragged us down. All those engaged at photo-engraving can, by art training and self-respect, help to bring our calling not only to its proper place in the graphic arts, but restore American illustration to the leading position it once held.

The Minimum Wage.

The Trade Union View Point.

A COMMON argument against trades unions among a certain class of employers is that the grading of workmen is forbidden by the unions and, without such grading, the good mechanic is held down to the same level as the poor workman.

The truth is that the unions have a grade established—the minimum scale—below which no worker in that specific trade should be paid. Then the employers can pay the extra skilled workman as much over this minimum scale as they please or consider the man worth. The unions simply agree with the employer in saying that this certain labour can only be graded down to such a point, and the minimum scale, as a rule, is only a fair living wage. In the trades composed of men who understand the grading fallacy and have united in strictly enforcing a minimum grade, the wages are good and the hours are low. The employers are also not only making better profits but there is an understanding between employers and employees that can be compared to the relation existing between the ruler and the citizens of a country possessing representative government. In such a country there is true progress, while where Kaiserism or absolute rule prevails—non-union conditions—there is retrogression and the people are only held in subjection through fear without loyalty.

To neglect advertising is like resolving never to travel in a motor car or use the telegraph and telephone.

✓ *Care of Copy—The Printer's View.*

AT a time when historic buildings are being burned and art objects destroyed by the modern vandals of Europe, it seems inconsequential to refer to the mutilation of copy in the photo-engraver's plant, yet as business and industry must keep moving, many petty matters must be attended to as before the war.

When the average photo-engraver receives copy for reproduction, the first thing he does is to paste an instruction label on it. He then writes an order number on it, and when the camera man gets it, he puts tack holes in it. Sometimes this is all that happens to the copy, but the re-etcher, if he thinks of it, will add a yellow spot or so of acid.

This condition gives much concern to the printer, who acts as intermediary between the owner of the photograph or drawing and the photo-engraver. If anything happens to the copy, the printer is what, in applied English, is known as "the goat." The customer is irritated and the printer's explanation is futile. Payment does not replace valued copy any more than monetary compensation restores a lost arm or leg.

Why do most photo-engravers assume that copy submitted for reproduction is of no further use after the plates are made? And especially why do they, when asked to take particular care of a certain piece of copy, take fiendish delight in marring it?

We will concede that it is almost impossible to send copy through the composing-room of a printing office and have it come out spotless. The engraver may point to this fact in refutation of the printer's claim that engraver's copy should be returned in good condition. There is

a difference, however. The printer has type-soiled hands and it is only with the utmost care that he can prevent the ink dust from attaching itself to the copy. The photographer should not have soiled hands; his work is clean. And there should be some method for fastening copy in position that would be an improvement on the disfiguring tacking.

The instruction label also presents a problem. The engraver will ask how this label is to be attached to the copy if it can neither be pasted nor tacked. It could be clipped, but if this is not practicable, photo-engravers themselves should solve the problem. Printers have troubles of their own. The solution should be simple, not one that would require unnecessary time and expense in the handling of copy.

Sometimes the mutilation of copy is due to carelessness in the printer's own office. The copy may be insecurely packed or thoughtlessly placed where it may become soiled or damaged. Artists invariably place over their drawing a protecting sheet on which instructions can be written. Printers should see that this is done on each piece of copy, and if the end of the sheet cannot be pasted down on the back, it should be clipped on. Selection of the clip is of some importance, as certain clips wrinkle copy, especially photographic prints, and this wrinkle may show in half-tone reproduction. Unmounted photographs are likely to be marred if they are written on the back with lead pencil, even if slight pressure is used, and mounting them carelessly with mucilage or paste causes wrinkles.

Copy requiring unusual care should be so marked prominently.—*American Printer.*

✓ *Mixing Colours.*

By Gordon Coit, in "*The American Pressman*."

IN mixing colours there is a gradual decline toward darkness because each component of the mixture absorbs some light. Consequently the more colours in a mixture the more light will be absorbed. So for brightest mixtures use fewest possible colours. Printing inks are mostly dye colours, and some of these dyes cannot be matched by mixing inks, as, for instance, green lake.

There is but one opaque red pigment, genuine quicksilver vermilion. Any red ink that looks weak will be improved by adding vermilion, which gives covering quality and opacity.

There are no opaque blues. To make a blue cover better, add cover white to it.

The brightest reds are mixtures of genuine vermilion and the dye colour geranium lake. There are many shades of red, but all can be matched with a limited range of inks as follows: Vermilion, geranium lake, Persian orange, scarlet lake, white.

All blues can be matched from the following stock: Bronze blue, Prussian or milori blue, ultramarine, iridescent blue and white.

A complete stock of yellow inks with which any sort of yellow can be mixed would include: Indian yellow lake (four-colour transparent yellow), primrose, lemon, medium, golden and red chrome yellows and white.

Only one green ink need be stocked—green lake. With it and the white, yellow, blue and red inks named, all greens may be mixed.

Any brown may be matched by adding black ink to vermilion or red chrome

yellow and toning as desired with one of the inks named above.

In matching a colour, the first thing is to know exactly what you must match, which is not easily seen when the colour in question is surrounded by others in a multicolour print. It is a help to view the colour through a small hole cut in a sheet of black or gray cover-paper.

In mixing colours to match, start with a base of the lightest colour in mixture, very often white. Use a very little of it to start and add still less of other colours until match is secured, carefully noting proportion of component colours. Mix in a good light and be sure everything is clean.

It will be found each colour has its own peculiar quality, shared with no other. Once these characteristics of the principal colours are firmly fixed in the mind, colour mixing and matching will be found much easier.

Black stands for darkness and darkens all colours in mixing. There is a difference though, between darkening a colour and deepening it. Black deepens no colour, but darkens all. The effect, in many cases, is displeasing, and we have come to say that black muddies a colour. To deepen a colour we must add its complementary colour. To deepen red add blue-green, to deepen yellow add purple, to deepen blue add burnt sienna. White pales all colours but does not lighten or brighten any.

Yellow is the brightening colour. It adds light to all colours and mixtures.

Red is the colour of warmth and glow and warms all mixtures.

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Blue is the colour of coldness and cools all mixtures.

To illustrate the coldness of blue and the warmth of red take a medium purple, inclining neither to blue nor red. Add enough red to make it a decidedly reddish purple, and you note the warming effect of red. Next add enough blue to make it a decidedly bluish purple and you can feel the temperature drop, as it were.

Or add red to white and you begin to think of warmth and heat, whereas if you add blue to white you begin to think of snow and cold.

To illustrate the difference between red and yellow, mix a buff, add red moderately and the buff is warmed into salmon. Add yellow and the salmon becomes much brighter. Red is a retiring colour, but yellow is an advancing colour. Red gives warmth and attracts the eye, but yellow not only attracts but seems to jump from the paper at you.

When matching a colour, if you will lay your trial match beside sample and note the difference in brightness, you will know whether you have too much or too little yellow. Does your trial seem warmer than sample, or has it the glow peculiar to gold in excess? Then you have too much red. Does your trial seem too cold? You have too much blue. And so on.

Another point to be noted is the thickness of ink film. You may mix a batch of ink on the slab which seems to match a printed sample, but when you put your trial on the press and use a thin film of it, it may be too light. To avoid this vexation, which means one or more wash-ups, take a brayer roller and distribute a bit of the ink you have mixed, then roll a thin film, as in printing, on a sample of paper to be used, with the brayer roller.

Some inks after drying appear quite different than when wet, so it is a safeguard to dry an impression with artificial heat or sunlight when in doubt.

A good way to study colours is to tint each principal colour with increasing additions of white. Start with, say, five parts of white to one of red, then double the white, triple it, etc. Add white to each of the principal reds, blues and yellows. This reveals the cast of a colour in a surprising manner. It shows whether a red is of orange or bluish cast, whether a blue is of purplish or greenish cast, whether a yellow is of greenish or orange cast. There is no absolutely pure colour, each inclining or having a cast toward some other colour. When we have learned the cast of a colour we can use it more effectively in mixtures. Once having noted the greenish cast of lemon yellow we would know better than to use it in mixing cream tints, always mixed from medium chrome yellow.

A Gyroscopic War Picture Camera.

FOR the use of official war photographers a gyroscopically stabilised moving-picture camera has been adopted by the photographic division of the signal corps. The instrument is of all-metal construction and weighs 20lbs. When a tripod cannot be used and no substitute support is available, it can be held in the hands and successfully operated. It is designed to permit quick adjustment to almost any angle, and is fitted with a panoramic arrangement that enables it to be swung in different directions with steadiness and uniformity of speed.

Waste.

THE Government has called upon the nation to eliminate waste. Every ounce of energy put into the manufacture of materials that are wasted, could be put to use toward winning the war.

The increased cost of all chemicals makes it not only a patriotic duty, but a vital necessity that every manufacturing photo-engraver stop every possible leak in his establishment.

It is probably safe to say that there are more chemicals wasted than are actually used in the manufacture of our product. This statement may seem to be an exaggeration, but let us look at facts.

Take, for example, the most expensive chemical that we use—silver nitrate. A brief glance into what actually happens when we make a negative might be worth while.

When a plate coated with collodion goes into a bath of silver nitrate solution, two things happen to it. The first is that all the soluble chlorides, iodides and bromides in the collodion are changed to silver chloride, silver iodide and silver bromide, taking the silver from the silver nitrate in the bath, thus forming a white precipitate. The other change is that the collodion on the plate becomes saturated with silver nitrate solution from the bath. The plate is then exposed in the camera. The exact change that takes place during this exposure is not definitely known to scientists, but we do know this exposure gives the silver chlorides, iodides, and bromides the power to collect metallic silver in proportion to the light they have received. The silver nitrate remains unchanged during this exposure. In developing the plate, the iron sulphate in the

developer acts with this silver nitrate still on the plate, and precipitates metallic silver, which is collected by the changed molecules of silver chloride, iodide and bromide. The portion of the negative which turns dark has collected metallic silver and the balance of this silver goes into the sink and is wasted when the plate is washed after developing. This disposes of the silver nitrate that we had in solution on the plate.

The fact that a plate that is washed before developing cannot be developed, proves that the developer acts only with the silver nitrate solution in developing. There are other simple demonstrations that can be made to prove this fact.

Now, then, the important fact remains that we still have on the plate all the silver bromides, iodides and chlorides that we started out with, and these, having performed their function as collecting agents, are now dissolved by the cyanide fixing solution and allowed to run down into the sewer.

From this outlined analysis it can readily be seen that in making a negative, twenty-five per cent. of the silver used is actually retained on the plate, and that at least seventy-five per cent is allowed to go into the sewer.

This is only one of the many leaks for what small profits there are in our industry. There may have been a time when some chemicals (such as potassium cyanide) were too cheap to worry about, but with prices and conditions as they exist to-day, it is of the utmost importance that methods should be found to eliminate all waste as far as that may be possible.

THE difficult situation often contains the germ of advantage.

THE PROCESS MONTHLY.

THE ECLIPSE, the organ of the Eclipse Engraving Company, is an excellent medium of communication with customers, and with those whom it is desired to interest in the doings of the firm.

This monthly has always something bright and fresh, and it must entail a great deal of thought and care in order to produce so successful an issue each month.

That the publication meets with the desired appreciation is shown by the poll taken recently, which showed that 84 per cent. of those to whom it is sent both read and *preserved* the booklet. We very much doubt if any other class of advertising can produce equally satisfactory reports or results equal to those that accrue to the Company through the medium of this little venture.

THE NORTHERN, the house journal of the Northern Engraving Company, is as usual full of good things, and as it is entirely produced by members of the staff, it reflects the policy and aims of the company, and is the expression of their efforts on behalf of their customers.

A recent number was produced on brown paper, as an example of war-time economy, and a really good issue it was. No one would need to apologise for such a number if paper conditions become worse. The issue shows what can be done by a little thinking and a determination to excel, and we congratulate the Editor and all concerned upon their success.

WHITE MOUNTAIN ENAMEL is the name given to a coated art paper sent us by the Whittaker Paper Company, of Cincinnati, and we may as well confess at once that it has made an exceedingly strong appeal to us. It has a beautifully soft silky texture, together with a magnificent printing surface. It is among the very best papers we have seen for colour and black and white half-tone printing, a paper such as can hardly be procured in this country at the present moment at any price.

If it were possible to import it, it would well repay the extra expense to the process-engraver in the added effect it would give to his proofs.

GOOD PRINTING, a monthly magazine for the advertising man, issued by the Roger Williams' Press, of Cleveland, amply demonstrates that those responsible for its production can not only produce a really good title for their monthly issue, but at the same time live up to it, which is a far more difficult matter.

The mechanical production of this house monthly is practically perfect—the format, the lay-out, the type, the printing, and the paper seem all to have been the result of considerable thought combined with great skill and intimate knowledge of the methods to be adopted in order to secure the desired effect. As an example of

"good printing" these issues leave nothing to be desired.

A TRIP THROUGH THE PLANT OF THE SEYBOULD MACHINE COMPANY is a well-produced booklet giving a bird's-eye view of the activities of "the largest and most complete plant in the world devoted exclusively to the manufacture of printing, etc., machinery." This booklet is well conceived and thoughtfully planned and fully illustrated, and shows the various stages through which the work goes in order to secure that perfection so essential to true success. Copies of the booklet can be had by our readers on application to the Company.

PROOF, containing some recent examples of designing, engraving and printing in two or more colours, is the work of the Gazette Printing Company, of Montreal. This quarto issue certainly does credit to the company whose work it is intended to show; that the company is well equipped for its work and has an efficient staff is amply testified by the great diversity as well as the quality of the work shown.

It is a pleasure to meet with the work of so progressive a firm, which is prepared to spend heavily in order to show fitness to produce work of the highest quality in every branch of the graphic arts.

MESSRS. WIMBLE & COMPANY, of Sydney, N.S.W., send us a copy of "Wimble's Reminder for May," which is their Jubilee commemoration number.

Fifty years ago the founder of the firm commenced in a small way of business, and from time to time, with the aid of his son, added to it various branches, until to-day they are the largest importers of printing materials, and are the only type foundries in the Southern Hemisphere.

In addition they have the largest and most complete printing ink factory in that part of the world, and are also manufacturers of printers' composition, and to complete their organisation have added an electrotyping plant.

Undoubtedly their claim to be in the foremost rank of business houses is no vain boast, and as "the fourth generation (of the Wimble family) has already shown itself well able to grasp the bow of Ulysses, we may expect to hear more about this progressive concern.

The monthly is full of useful matter, and the history of the house as narrated in this issue has many points of deep interest. Altogether "Wimble's Monthly" is an exceedingly well-prepared and well-produced venture, and as it is published quarterly and has already reached the forty-fifth issue, it has enjoyed a fairly long life, as it well deserves, and we can but compliment the house on its courage and upon the success that has attended it.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

The Future of Photo-Engraving.

By Louis Flader.

The Commissioner of the American Photo-Engravers' Association.

WE are beginning to apply science to industry as it has never been applied before. Photo-engraving will hold its own during and after the war only if we can meet the demands made upon us by the necessity of the times. The conditions forced upon us in these times will make us think, and we have already learned to do without certain things that were formerly thought indispensable. It does not follow, by any means, that we must stick to the present methods of performing our work. Our task is to replace, as far as possible, human frailties and inaccuracies with scientific and mechanical devices that will lighten the labour of the working man, permit him to earn more, cheapen the cost of the product and enable the manufacturer to sell at a lower price and make a greater profit. The future and the success of this business does not depend upon our ability to raise prices indefinitely. In fact, such a course of action would eventually put us out of business altogether by reducing the demand for our products to a point where it disappeared entirely. Our success and the future of this business depend entirely upon the knowledge we possess and the thought and efforts we put into it, so that we may render a

better service at a lower price, thereby creating a greater demand for what we make. Prices as we know them have nothing to do with profits. It is the margin between the cost of production and the selling price that determines whether a business is profitable or not. Half tones may be sold at one dollar an inch and yet the business may be unprofitable; and they may be sold at ten cents an inch and produce a handsome profit. It all depends upon what it costs to produce them.

Assuming that we will develop the technical side of the photo-engraving business to a point where we can compete in both quality and price with all other methods, the new order of things demands that we do business on a more scientific basis than before. We must give more attention to the cost of all non-productive elements usually termed "overhead." It is very likely that present conditions will prove a blessing in disguise to many of us, by ridding our establishments of unnecessary help, especially in the clerical, sales and office forces. We have all carried too heavy a burden in unnecessary space, unnecessary help of every description, unnecessary equipment, wasteful consumption of material and in other items

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of expense which contribute absolutely nothing to the welfare of the business. There is no room in this business for non-productive elements and the sooner we get rid of them, the better it will be for us. Remember, photo-engraving is a service—not an article or a commodity in common use. You cannot advertise it, sell it or manufacture it as you can a commodity or an article in common use. To try to do so means to waste your money. Imagine a lawyer or a doctor chasing salesmen all over the country trying to sell his services. Certainly, you can send salesmen out to sell commodities and ready-made articles of every description, but you cannot successfully send out men at a great distance to sell a service such as we render, and do it at a profit, generally speaking. The greatest mistake we have ever made, and I hope that we have seen the last of it, is to treat photo-engraving as a manufacturing industry and the product as a factory product. The sooner we get the factory idea out of our minds and the quicker we get the thought that we are selling a service, the more we will profit and prosper.

The Tides of Money.

MONEY is never still. It is always moving. It is always coming in or going out.

That is why you must have a system of weekly reports from your office, to tell you how the tides of money have flowed during the week.

That is why you must watch the leaks—the wastes—the expenses—the dead departments—the unprofitable managers.

KEEP YOUR EYE ON THE TIDES OF MONEY.

Keeping Orthochromatic Plates.

 RTHOCHROMATIC plates must always be kept in a dry, cool place. Old plates show the effects of age by losing their colour sensitiveness although they may show no signs of fog or other indications of staleness. We once used some orthochromatic plates that had been kept all summer in a rather damp and hot shack in a summer camp. They were perfectly good in so far as they gave a good clean negative, but they had lost a good deal of their power to differentiate between the colours and were practically the same as non-colour sensitive plates.

This is one of the drawbacks to the use of ortho plates, they do not keep as well as other plates and they show their age by losing speed and colour sensitiveness.

A Printing Tip.

A WISE philosopher once remarked that genius is merely an infinite capacity for taking pains. As far as photography is concerned we might remark that success can be attained only by paying scrupulous attention to small details. One detail easily overlooked in printing is to make sure that the glass in our printing frame is quite clean.

In the dim yellow light it is not difficult to fail to see a smear or a finger print on the glass which will show on the prints when they are brought forth to the light of day. The glass in the printing frame should always be examined carefully and when printing from glass plates the glass side should be carefully cleaned before making the exposure.

The Federation and the Men's Society.

EVER since the agreement between these two bodies was first discussed there has been evidenced a growing feeling of mutual confidence and goodwill which gains additional strength as time goes by.

Ever since the Federation first came into contact with Mr. Barnes, the late Secretary of the Men's Society, who did so much to lay a sure and solid foundation upon which the superstructure could be raised, and which his successor, Mr. Kneale, has done so much to consolidate, there has been, on the part of the Council of the Federation, a growing feeling of respect for the officials of the Society, so much so that at the joint meetings which take place from time to time, there is little of the mere party feeling, or attempt to "score off" the other side, but a full, free and frank heart to heart talk between the two sides with an evident desire to appreciate the bearing of any arguments that may be put forward respecting the questions under discussion with a view to finding that solution for the same which shall be mutually satisfactory, and that shall be for the best interests of the trade.

It is cause for hearty congratulation that such is the case, for it is not every trade that can say so much for the harmony existing between the sometimes opposing sides, and there can be no doubt that as time goes on this feeling of mutual confidence will bear rich and lasting fruit.

We have been led into the reminiscent mood through reading the report of the Commissioner of the American Photo Engraving Association when referring to the relations existing between his Association and that representing the employees.

He remarks that "the relations between our members and the International Photo Engravers' Union, generally speaking, are harmonious and mutually satisfactory . . . That notwithstanding present conditions we have experienced less annoyance and losses resulting from labour disputes and demands than any of the printing trades. . . . They have adhered strictly to every agreement entered into between themselves and employers, and at the expiration of their agreements have shown a disposition to be fair and to give consideration to the interests of the employers and the industry as a whole."

Surely it must be cause for much congratulation to all concerned that the words used by the American Commissioner respecting the Men's Society might just as truly have been written respecting the Society representing the English workmen. Is there a something in "Process" that places its representatives in a higher category than is to be found in some other trades? At any rate such is the position, and we rejoice in the fact.

The next paragraph in the American Commissioners' report reveals a matter that needs adjustment so far as they are concerned, a matter, it may be remarked, that has been already discussed and amicably settled between our Federation and the Men's Society. In fact it was one of the very first queries that arose after the definite agreement had been drawn up and signed, and the fact that it was so soon dealt with and settled bears eloquent testimony to the far-sightedness of the officials of the Men's Society.

The paragraph to which we refer reads as follows: "Perhaps the greatest bone of contention between employers and

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employees at this time is the strict classification and restriction practised in certain parts of the country. This is a custom of long standing, which, in my opinion, has outlived its usefulness, assuming that it ever had any, of which I am not too sure. Certain divisions are entirely proper and natural and will always be maintained because of their very nature. Others are purely arbitrary and answer no good purpose whatever. Their strict enforcement prevents the workers from learning anything about the business as a whole other than the branch in which they are actively employed. It deprives them of that full and complete understanding which is very essential and which is reflected in everything that is done. It stands to reason that no matter how much a man may know about the various branches of photo-engraving, *he can work at only one of them at a time*. I am not seeking to bring about a condition where every workman is supposed to have a working knowledge of every branch of the business. That is entirely unnecessary and impractical as well. A little wider knowledge and a little more elasticity in its application in shop practice will bring about an improvement in the quality of the work, an improvement in the individual and, what is most important to all of us at this time, *a better distribution of available labour*. In a city like Chicago, for instance, we frequently are confronted with a situation like the following: Fifty members of the Photo-Engravers' Union are unemployed and seeking employment; these men all carry cards in branches in which no vacancy exists at the time. They are a drug on the market and a source of expense to their fellow-members. At the selfsame time, there is a demand for perhaps ten or twelve men in one or two

branches and no one out of the fifty unemployed is allowed to fill the vacancies. This frequently gives rise to the belief that there is a shortage of labour in the photo-engraving industry. Close observation leads me to believe and to say unqualifiedly that *there has been no real shortage of labour in the photo-engraving industry in the last four years*. At times, however, we have suffered from what appeared to be a shortage of labour, but which in reality was nothing more or less than the result of branch restrictions and improper distribution of available help. The question of the proper distribution of labour is one of greatest importance to both employers and employees. I have every reason to believe that the International Photo-Engravers' Union is already giving the matter attention and that its officers will co-operate with us along common-sense lines to our mutual benefit and satisfaction."

We have no doubt that the deeply interested officials of the American organisation directed so ably by their Secretary, Mr. Matthew Wool, will come to a just and fair decision and that that decision will be practically on the same lines as those which are found to work so well and to give such thorough satisfaction to their English confrères.

You can't see a buyer between nine and eleven in the morning, because he's reading his mail; nor between twelve and two, because he's at lunch; nor between three and four, because he's dictating mail; nor between four and five, because he's signing it. And yet thousands of pounds' worth of process work is sold every year. Wonder when?

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

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Shoe Lane, E.C. 4.

Vice-President—

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Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

DURING the month there have been three meetings of the Council, at all of which matters of importance to the trade have been considered, and decisions arrived at which it is hoped will prove to be for the best interests of the industry.

Sometimes questions which appear very difficult come up for decision. Not that they are inherently difficult in their general application, but are very difficult in their application to the particular case under consideration. The Council, however, look at all questions from the general standpoint: that is from the standpoint of what is the best for the trade as a whole, consequently, whenever individual cases are under consideration it is felt to be impossible to make exceptions here and there, but that the general regulations laid down must be applied.

Should any member of the Federation at any time feel that the decision given in a case presented by him bears rather hardly upon him, perhaps he will endeavour to remember that the general good of the trade must be the paramount consideration. Therefore he will loyally and willingly abide by the decision given.

It is matter for very great satisfaction that the decision come to by the Council to raise the piece of process blocks, in consequence of the increase in wages, materials, etc., has met with such general satisfaction; there was some doubt felt as to whether the Council should take the full responsibility or call a special General

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Meeting of the trade to discuss the matter.

Of course there could be no discussion as to the facts of the case. Our employees were determined to have the increase and the supply houses had raised their prices all round. These matters, therefore, had to be accepted as matters of fact about which there could be no argument. The only question therefore open to discussion was in what way the increase could be passed on to the customer; whether it was worth while to put the trade to the expense and inconvenience of coming from all parts of the country to London for that purpose was an open question. The Council, however, decided to act upon its own responsibility as laid down in the Rules of the Federation, and that it did wisely is evidenced by the practically universal acceptance of the decision almost without question. About 3 per cent. of the firms in the Federation wrote, somewhat mildly suggesting that they should have been consulted before the final steps were taken, but as loyal members they were falling into line with their fellow process-engravers, and were charging the new prices. Apart from these suggestions, the whole trade has accepted the situation, and from all reports that come to hand it is evident that the increase has been put into operation with the least possible disturbance to the trade.

For some considerable time discussion had been proceeding with the Platen Printers' Machine Minders' Society, who are desirous of entering into a working agreement with the Federation upon similar lines to that of the Amalgamated Society of Process Workers.

Several meetings have taken place from time to time, and the whole question has been carefully reviewed in the light of the

experience gained by the working of the present agreement. During these discussions both sides have learned a great deal as to the difficulties that have to be encountered in the carrying on of the daily operations in the workshop, and it is hoped as a result that a clearer perception of what is requisite in such a document will result from these conferences.

The Metal Committee gave an exhaustive report as to the position of copper and zinc to date, and as to the prospects for the immediate future.

The Council has no desire to paint the position too gloomily, but even so it must be confessed that the position is very serious indeed, so serious that it behoves every member of the trade to husband every scrap of metal in his possession.

How serious is the position may be gleaned from the following facts:—

At the beginning of the year the supply of copper allocated to the trade was cut down very severely, far more severely than the Committee could agree to, but as they could not control the Government Department they had to accept the inevitable, for they were assured that the allocation was the utmost possible.

Up to the end of September there was due to be delivered 76 tons of copper, but only 21 tons had been received.

There was due at the same date 75 tons of zinc, but 38 tons only had come to hand.

From this it will be seen that the Government had not met the allocation of copper by nearly 73 per cent. and the zinc allocation by above 50 per cent., and as the metal had not come to hand it was quite impossible for the Committee to distribute it.

Very urgent representations have been made from time to time to the Department

concerned, but the only reply to be obtained is that they are doing the best possible; owing to the stringency of the shipping demands of the Army; they would however see if any improvement could be secured in the near future, and with that promise we have to be content, or at any rate as content as possible.

As to the immediate outlook, by the time this is in the hands of our readers there is expected to be ready for distribution a consignment of copper that has just arrived in the country, and there is on the road a small consignment of zinc. These, so far as we can gather, are the only stocks available in the near future, and we can only hope that news will come to hand promptly of further supplies being shipped.

In the meantime conserve every scrap of metal. Do not allow even the smallest portion to be wasted.

A report that would be likely to **create serious unrest** in the trade should it gain general credence, was discussed at one of the meetings. It is therefore mentioned here so that it may be confidently, and we may say, officially, contradicted.

The report was to the effect that as the copper and zinc are rationed strictly upon the basis of the employees in the various houses it was unfair to those houses who have process plants only, as those houses who have printing and photogravure plants as well would consequently secure a greater supply of metal than their actual share, and that this gain would be at the expense of the houses who had process plants only.

It cannot be too strongly emphasised that this supposition is entirely without foundation, for every house in the trade is rationed strictly upon the number of

employees in their process plant. The few houses who have printing and photogravure plants **do not receive any rationed process copper** on account of the employees engaged in photogravure or printing.

The Committee charged with this branch of the work will be pleased to give the fullest information to any house that would like to make investigation, as it is realised that it is only by mutual confidence of the highest order that harmonious working can be assured.

Another matter of first-class importance to the trade is under the consideration of the Council, viz., the position of those newspaper houses who have process plants, and who may be supplying occasional blocks. It is of course a matter of great importance to the trade that they should maintain the Federation scale of prices in all such transactions, and the Council is endeavouring to come to such arrangements with them as will secure so desirable a result.

It is almost an invariable occurrence to find a fairly long list of letters from members of the Federation, etc., respecting various matters in which they are interested and about which they desire to consult the Council. These are all carefully examined and suitable replies sent at earliest possible date.

Many of them reveal very interesting questions as to procedure, policy, etc., etc. Inasmuch as many of these matters are private to the firm concerned, it is impossible to report them in these columns, but it may be said that they receive very sympathetic consideration and there is reason to believe that the advice given has borne fruit in various directions. Recently two firms who had not been able to see matters from the same standpoint, and who had put the dispute before the

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Council, received carefully considered advice which was acted upon, with the pleasing result that they both accepted the advice given and are again upon the best of terms.

Questions are constantly asked re the supply of materials required in the trade, and whenever the Council can give definite information it is willingly given, but conditions vary in different parts of the country, and as we have no means of ascertaining the local conditions general answers only can be given. Still, in many cases the information is valuable and has often been found very useful.

It may be that in the near future queries may arise re the employment of men in process houses who have not made process their regular pre-war work. In all such cases before any steps are taken by the house it is very advisable that the secretary of the local branch of the Men's Society be first consulted. By this means many positions that might assume difficult proportions if this is neglected, may be most amicably arranged to the benefit of all concerned, and the Council strongly advise that such a course be adopted.

Save the Minutes!

A Little Sermon for Business Men on how Time increases Cost.

By H. N. Casson.

Too few of us realise the necessity for saving minutes, ay, seconds, in our daily work. This stimulating, straight-from-the-shoulder talk on the subject is taken from the author's new book, 'The Axioms of Business.'

IN savage and semi-savage countries no special value is set upon time.

Time is not regarded as a property that can be wasted. Time doesn't matter. There are no clocks and watches. There

are only stars by night and the sun by day.

In countries that are civilised but uncommercial there still remains much of this indifference to time. In Spain, for instance, to-morrow is as good as to-day, and perhaps a little better. In some parts of China the unit of time is fifteen minutes, so that an hour can only be divided into four parts. In Russia there is not as yet any instinct of punctuality. If the train does not arrive at four o'clock, very well. Maybe it will arrive at five or six. One never knows.

But in countries that are both civilised and commercial time is a treasure. It is almost a currency—a form of wealth. We set His Majesty the clock in the marketplace and bow down before him.

We become the servants and vassals of the clock because we find that he is a king who never fails to reward the obedience of his subjects. Old King Clock! He is the ruler of the winners of the business world.

* * * * *

Time is money! That is a commercial motto. It is one of the most important assertions of efficiency. No one, in these tense days, can hope to remain a leader in the affairs of business who does not render homage to time.

We have invented watches that split seconds up into fifths. One whole second was too long a time-unit. Many things can be done in a fifth of a second or less. An express going sixty miles an hour carries you seventeen feet in a fifth of a second. It carries you one foot in one-eighty-fifth of a second.

CARE OF COPY.

Will photo-engravers co-operate with printers in lessening the damage that is done to copy?—*American Printer.*

Mr. A. W. Penrose Passes Away.

PROBABLY the most familiar name among process-engravers is that of Messrs. Penrose & Co., the firm which some twenty-five years ago saw the possibilities of process and laid its plans accordingly, with the result that it has ever since been in the forefront of all that pertains to the welfare of the craft.

We regret to have to announce that he whose name the firm bears, has passed away at the comparatively early age of 58 years.

Twenty-five years ago, Mr. Andrew Wybrant Penrose became associated with Mr. William Gamble, F.R.P.S., then a journalist, who was keenly interested in the development of rapid methods of newspaper illustration, and they together founded the business which has now world-wide ramifications.

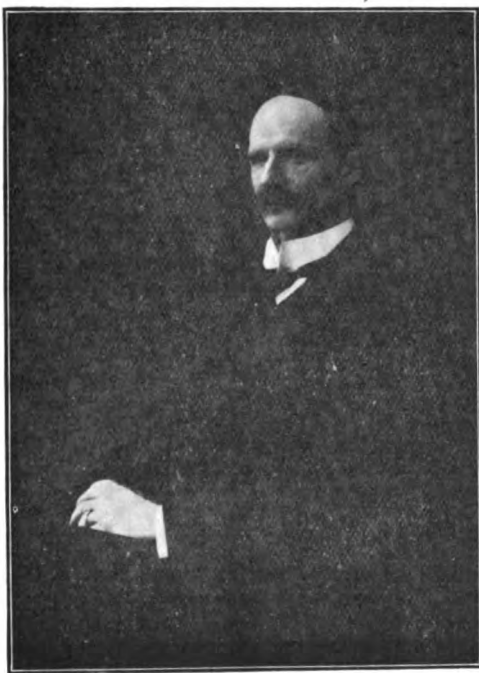
Mr. Penrose had been trained for the profession of Pharmaceutical Chemist and was carrying on that business in a small way in Amwell Street, in the vicinity of Lloyd Square, Clerkenwell, and it was here that he and Mr. Gamble formulated their plans which led to the opening of a small shop in Upper Baker Street, near

to the old business. Here was laid the foundation of the process supply business, the rapid growth of which led to the removal in 1902 to the present extensive premises in Farringdon Road.

It must be quite evident that men with such ambitions must work hard and long in the initial stages if they are to achieve the success at which they aim, and to this law the partners of the new firm were no exception, for they found that success was to be obtained only at the cost of constant endeavour.

To some natures such excitement acts but as a stimulus to further exertion, while in other cases it saps the very life springs. Such was the case with Mr. Penrose; never physically robust, the strenuous life

he had to live while doing his share toward the building up of the new business, laid the foundation of future weakness, so that for quite a number of years he had been in very indifferent health, and though every effort was made to enable him to recover, he gradually failed and while in this weak condition was seized with an attack of influenza, followed by pneumonia, which brought his life to a close on October 19th.



MR. A. W. PENROSE.

THE PROCESS MONTHLY.

The growth and development of the firm of A. W. Penrose & Co. may be claimed to be among the romances of the business world. As already stated, Mr. Penrose was a chemist when he was joined by Mr. Gamble, and they together began in a very modest way, making a speciality of supplying photographic chemicals to the process trade. From this grew the larger business of builders and suppliers of all classes of machinery, etc., required for process-engraving, and so well did they build that their name became associated with process in every part of the world. Electricity being one of the necessities of process-engravers, the firm added this branch of work to their existing organisation and so developed one of the most useful helps the manufacturer has ever known, whilst incidentally aiding the process business in which electricity plays so large a part.

To-day the firm of Messrs. Penrose & Co. is an extensive engineering and manufacturing concern, with world-wide connections, and all those who have known Mr. Penrose for many years will feel a keen regret that he has not been spared to enjoy till old age the success that has come from the work done in younger days.

Mr. Penrose is survived by his second wife and an infant son, now four years of age, who it may be hoped will in due time follow in his father's footsteps and maintain the traditions of the business.

The death of Mr. Penrose will not make any noticeable change in the direction of the business. Deceased had so long been incapacitated from taking any active part in its affairs that matters had necessarily been left to the direction of Mr. Gamble, ably aided of late years by Mr. Malcolm Owen, who was promoted from the staff to a directorship, and has developed the

manufacturing side of the business with conspicuous success. Mr. Gamble becomes chairman of the company, and Mr. E. A. Swain continues to fulfil the duties of secretary, which he has so effectively discharged for many years.

Use Sodium Salts.

It is necessary to repeat in these columns the warning which has already been given to professional photographers that the stocks of potassium salts in this country are so limited and the war requirements of the Government are so urgent that there is very little available for the private consumer.

There is not the slightest cause for anxiety among photographers, however, for the simple reason that for all practical photographic purposes the substitution of sodium salts for potassium salts makes no perceptible difference to the working of the solutions. Indeed, professionals would be acting patriotically, and at the same time reducing their expenses, if in making up formulas which call for such salts as potassium bromide and potassium metabisulphite they would substitute the same weight of sodium bromide and sodium metabisulphite.

The most important saving can be effected in bromide. Large quantities of potassium bromide are used in developers and in bleachers for sulphide toning. In both these cases the sodium salt gives just as satisfactory results as the potassium salt, so that there is no reason why photographers should continue to use potassium bromide when supplies are already short for medicinal uses and for manufacturing purposes where it is absolutely essential.—From *Professional Photographer*.

Photographic Chemicals.

A New British Industry.

IN the early months of the war it was realised that photography would play its part, but it was only the few who foresaw its vast possibilities in modern warfare. Mention is made from time to time in the "British Official" of the number of photographs taken on a certain day, but who has guessed at the enormous total of photographic exposures that the flying men must have obtained, and who has estimated the photographs that have been printed? The complete story of photography's part in this war must wait before it can be told, but its importance in the fight is undoubtedly very great, and its beneficent work in the hands of the surgeon as he uses it to record the wonderful and searching diagnosis of the X-ray is none the less important.

Soon after war was declared, it was realised that one of its results was to cut off the supplies of essential photographic chemicals, namely the developing reagents themselves, without which the work of the camera could not be recorded. The most important developers had been made almost entirely in Germany or from German intermediate products. The fact is they are derived from coal tar, and their manufacture formed a small but valuable branch of that great industry of chemicals, dyes, and drugs, which Germany had by one means or another made her own. The manufacture of photographic chemicals, therefore, was still another reason for the prompt and full development of Great Britain's enormous natural wealth of coal tar.

It was only natural that the firm of

Johnson & Sons, Ltd., Manufacturing Chemists, of London, who had always specialised in photographic chemicals, and whose Silver Nitrate and Gold Chloride were of world-wide renown, should lead the way in this new British industry, and be the first to produce these developers on a commercial scale. The premier developer for bromide papers is the Diamido-phenolhydrochloride, which up to 1914 had been principally sold under the names of Amidol-hauff and Amidol-agfa, but early in 1915 Amidol-Johnsons was produced, and quickly proved itself as being in every way equal to the German product. In subsequent months slight improvements have been made as regards colour and keeping properties, so that there is no doubt now that when it comes to be again compared with the German chemical it will be able to establish that excellence which is so often typical of British goods. Amidol was produced because of the urgent need for the best developer for papers in most photographic work, especially in that connected with the war, as by its use thousands of prints can be easily and economically made from a negative in the course of a few hours, while no other developer has proved so efficient for the important work of enlargement.

The chemical of the greatest importance in modern photography is undoubtedly the one with the not unimportant name of Monomethyl - paramidophenol - sulphate, which before the war was sold under the names of Metol-hauff and Metol-agfa. Metol has become the most widely used of all developing agents, and has proved itself

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The Problem of Prices.

An Address before the American Convention.

By Adolph Schuetz.

THERE'S no doubt the word "Problem" is admirably chosen in connection with the subject of prices. I find its meaning is, "A subject for solution." Gentlemen, if I could find such a solution for the photo-engraving industry, I would be more than human and you would be justified in calling me a "superman."

There are so many angles from which this subject can be discussed that I hardly know where to start. In fact, there are so many pitfalls, that it is worse than travelling the shell-torn ground of Flanders at night.

As a basis to start on, can I take it for granted that we all execute the same quality of work? If so, it would simplify matters a great deal if we could have a standard gauge of quality. This, I am afraid, is impossible.

Therefore are we to expect the man who does the cheaper quality of work to charge the same price as the one who does the higher quality?

Is it advisable for us to continue to fool ourselves, that this should be so?

Would it be fair and honourable to do it?

Should not a person be allowed to buy an inferior article, though it is photo-engraving, if he thinks it will answer his purpose? Cannot he do so in any other line of business? Even the printers, who are users of engravings, do not confine themselves to one quality.

What I should like to do is to dig in and get at the real foundation of things. It's no use trying to humbug one another.

That only helps to create a feeling of mistrust. Let's call a spade a spade. Personally I am in favour of acknowledging the fact that there is a variance in the quality of photo-engraving, and while such variance exists, there should be a difference in price.

I consider this should be represented by some allowance.

But right here comes the difficult part, where to draw the line. Personally we cater to the best and most exacting trade. Our service is the best, therefore our price must be higher; and then should we be classed with the other fellow who cares only to deliver a printing plate? Can a tailor-made suit be bought as cheap as a ready-made? Does a man look as good in a \$10 suit as he would in a \$30 suit?

Now I say prices on the chart should and must be made sufficiently high to cover the cost of the best quality of photo-engraving. I say this because it is practically impossible to obtain a higher price than the scale calls for, no matter what the quality or for whom it is executed.

Now the problem that meets us is this: Should a photo-engraver be permitted to do both the higher and the lower quality? Thus we have reached a point where we admit that we have a variance—the quality, and consequently in the last analysis, after we get through discussing and debating this price question, it will simmer down to one thing, confidence in one another's business principles, and this cannot be obtained by any by-laws of ours. You cannot make people temperate or religious by acts of Congress,

it can only be done by education. Principle is what we want to inculcate in the mind and heart of each one of us.

Don't let us be such damned fools as to expect others to do that which we do not do ourselves ; let us act unto others as we would have them act unto us, and then if there are any left among us with their souls so warped that they cannot play an honest game, let's eliminate them or drive them from the business.

This raises a very ticklish question. There are no doubt many pros and cons to this, and while it does not appear right that one should not be allowed to meet the other fellow's price, where the buyer is content with a lower grade of work, I am afraid it would not work out satisfactorily for the same house to execute the different qualities of work and thereby have the privilege of varying its prices accordingly.

It should be understood, however, if this is acknowledged, that the house which makes the lower quality only and consequently sells at the cheaper price, be known to all men as a manufacturer of the cheapest grade of photo-engravings.

This can and must be done. Why should we all go down to purgatory because there are a few among us who have not even learned the first rudiments of business principles, and further do not want to learn them, in fact don't know that there is such a thing to learn.

I will now proceed one step further : Should we discriminate between the advertising agency and the manufacturer ?

I may be somewhat radical in my views and against some of the tenets of our organisation, but after careful thought and some experience my answer is, YES !

A manufacturer who places his advertising contract with an agency, does it

with the knowledge that the trade papers and the magazines allow the agency a fifteen per cent. commission on all advertising space. The agency therefore looks for that percentage of profit on the engravings it handles, and I feel it is entitled to it, as there is considerable extra expense in handling direct work from the manufacturer, not only because of its smaller volume, but because of the expert time required in taking instructions and preparing his work, whereas the agency knows exactly what he wants and prepares his copy accordingly.

This matter must also be taken into consideration when the scale of prices is being prepared.

Printers—they must also be treated the same as the agency, as they fill a somewhat analogous position.

Publishers—if we acknowledge the validity of the claim of the agency and the printer, we cannot draw a line at the publisher. The engravings he makes for the advertisers he charged to them and therefore is entitled to the same discount as the agency or the printer. As to the engravings for his editorial pages, his argument is that he is selling the same, even though indirectly, and therefore entitled to a trade discount.

Again I agree.

If a manufacturer runs a house organ, is he entitled to the publisher's discount ? —No, because he is not reselling the engraving directly or indirectly.

We have now reached the point where the manufacturer should pay the scale net, and all others receive a discount.

The next question is : Should a further discount be allowed in proportion to the volume of the business done ?

I think that there should be an additional discount according to the volume of

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business the individual has. My idea would be that over \$500 and under \$1,000 should have an extra discount of five per cent, and over \$1,000, ten per cent. This is to apply to all buyers of engravings.

In the larger cities, like New York, we have other problems. For instance, some firms that are in the same building as the engraver think there should be an allowance made; first, because the cost of collection and delivery is saved and also the time of the salesman. I must confess that these arguments have some logic, but there are some engravers who too readily jump at these excuses to make reductions. It is only too true of our business, as of any other, that anyone who is looking for an excuse to act in a dishonourable manner can always find one. Personally I do not feel an engraver should make any allowance in any case. We must have some bed-rock basis on which to make our charges, and it is not right that any engraver should exercise any privileges over his fellow-craftsmen simply because he happens to be in a more favourable location or position to do so.

Keep your Temper

It Belongs to You.

YOUR temper. It's yours. Never lose it. Always keep it—below your chin.

WHEN you are in the right you can afford to keep it. When you are in the wrong you can't afford to lose it.

SMILE—and keep your temper. Remember nobody wants it.

It's yours.

It Belongs to You.

The Kaiser's Presentations.

Are they Process Work?

“THE EVENING STANDARD” recently called attention to the famous presentation portraits of the Kaiser which he scattered so lavishly among his friends, who received them as veritable treasures, and gave them honoured place in their halls.

“It may be remembered that the magnificent looking cups which Prince Henry, on behalf of his jocular brother presented in various parts of the world have proved to be made of pewter and other base metals.” This having become common knowledge, attention has been paid to the “portraits in oils” referred to above, and an examination has revealed the fact that they are not originals, but merely reproductions, and may be classed with the “paintings” that adorn the lids of chocolate boxes, etc. A German expert who should know all about the question says they can be turned out by the gross, and that the Kaiser probably gave about £1 apiece for them, and yet with all the sangfroid imaginable he sent his representatives in India, together with his staff, travelling some hundreds of miles to make the presentation of one of these reproductions to a certain college. Is a man who stoops to such tricks to be trusted in any matter?

PUT the loud pedal on quality and workmanship, and then live up to your advertising.

THERE are two things your customers are interested in—Quality and Price.

Strengthening Aero-graph Tubing.

THE small white tubing supplied by the Aerograph Company is nice and light to handle when attached to the Aerograph headpiece ; but, after a while, by continuous pressure from within, it gradually gives way, swells, and eventually bursts at the ends near the head piece and air tank, which is a drawback when good pressure is preferred. A very good and cheap remedy for this is to obtain a yard or so, according to the length of the tubing to be covered, of ordinary tape, wide enough to fold round the tube, and be stitched down. The width for stitching down should be gauged beforehand and the tubing drawn through afterwards, bringing the covering of tape right up over the nozzle of the headpiece with the tubing and tied down with it. Rubber connections have been covered in this manner for over twelve months without having any trouble, whereas before the tubing was continually being renewed, and, as I use high pressure, it is not only a saving, but the trouble caused by continually taking off the tubing to cut off the burst portions is considerable.—GEORGE COLEMAN.

Mutual Bargains.

TOO many men of all nationalities, not Scotsmen only, believe that the art of Business is to get "the best of the bargain."

This is a great mistake. It has ruined thousands of men. It has broken up thousands of firms.

A good bargain is always *mutual*. There is no "best." It gives profit and pleasure to both buyer and seller.

Recently, I wanted to buy some flowers. I wanted more than I wished to pay for, so I planned a mutual bargain.

I went to my florist and gave him 20/-, and I said :—

"Send me whatever you like. You must have a great many flowers here that are not saleable. You are fed up with them. You are tired of seeing them. Just pick out a fair 20/- worth and send them over to me."

Well, he sent over a van-load. I thought he would. He sent over two orchids that were worth the 20/-, and a couple of dozen ferns, shrubs and palms.

That was a mutual bargain. He was happy. So was I. No one got the best of it. He got what he wanted and I got what I wanted.

So, that is the test of a good bargain—it must be *mutual*. There is nothing gained if you win a bargain and lose a customer.

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the best for X-ray and cinematography, whilst in combination with other developers it has become universally adopted for the development of films and plates which have received instantaneous exposure. As evidence of the great value that was set on Metol, it is worthy of note that several substitutes were produced, but Metol-Johnsons is, up to the present, the only production which is the true Monomethyl - paramidophenol - sulphate, and has that pure white crystalline form which the public had been accustomed to receive in pre-war days from Germany. Other developers, such as Glycin, Paramidophenol, etc., are now some of the productions of this new British industry and the manufacture of photographic chemicals has become firmly established in the United Kingdom.

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W. P. SCHOONMAKER: HIS WORK AND WHERE HE WORKS.—This finely produced brochure is put into circulation by the Associated Artists of Philadelphia, and gives in few words the ideals for which the Association stands, which may be summarised as follows: "There is always some better way of telling the story, worth more than a thousand words or a thousand colours. It is ours to find out that way." Perhaps the best summary is: Artists first—advertising men nevertheless. Whatever may be the aims of the combination it is quite evident that they have among them artists of repute, and it is to bring the work of one of them, W. P. Schoonmaker, prominently before those who are likely to be in need of services such as he can render, and in this booklet there are specimens of his work, specimens which show the master hand, for though they are all produced for advertising purposes they are genuine works of art.

So far as we can recollect this is the first time we have come into contact with a group of specialists who are prepared to go to the expense of such an issue for the purpose of bringing one of their number prominently before their patrons and those likely to become such. We can but heartily congratulate this combine upon their foresight, their camaraderie, and their enthusiasm, and we wish them every success.

GAGE'S READINGS, issued by the Gage Printing Company, of Battle Creek, is this month devoted entirely to war purposes, the company believing that by helping push American War Loan they are doing greater national service than by boosting their own business. Yet after all is not the one bound up with the other? So in all probability they are serving themselves best by serving their country. The issue is an exceedingly good one.

THE PROFESSIONAL PHOTOGRAPHER.—We have more than once called attention to this extremely well-produced monthly issued by Kodak, Ltd. We, however, note that owing to paper restrictions, etc., it is for the immediate future to be issued as a quarterly, that being the only alternative to drastically reducing the number of pages, and we are very pleased the Editor has decided to give us fewer numbers rather than less quantity in each number. We once more say we cannot possibly speak too highly of the production of this house journal. We consider it the best we receive, and the contents are always interesting and inspiring.

PRINTOLOGY, issued by the Regan Printing House, and as a specimen of good work, should be useful in making the abilities of the house known. Both the illustrations and the type matter are very well printed, and the company may well look for a good return from their venture.

THE TWENTY-EIGHT STANDARD BOOKLET AND CATALOGUE SIZES is the title of a booklet issued by the Dexter Folder Company. The purpose of the booklet is to show how the new standard stock sizes of American catalogue paper can be folded to the greatest advantage, and of course by a Dexter machine. The information is essentially useful to printers and will be valued by them. The letterpress is exceedingly well produced, the style has been well thought out, and the types have been very judiciously chosen. The book has a restful and enticing appearance as soon as it is opened, and it can be easily read—a very great point in these days of hustle and bustle.

HOUGHTON'S HERALD is a magazine specially produced for war workers. So far as we know this is the only publication of its kind, a house organ devoted exclusively to war workers and containing some most useful information gained by the Research Department of the Houghton organisation.

The publishers promise further issues as soon as ever they receive further matter of interest to their readers, and as there have been seven numbers already published, it looks as though there is a great fund of information available for the particular purpose desired. It is well got up, well produced, and well edited.

IT was the kind of direct thinking typical of trade unionism that led the American Federation of Labour to devise for American industry this standard of war-time conduct:

"No strike should be inaugurated which cannot be justified to the man risking his life on the firing line in France."

Any conduct that cannot meet that test is a kind of conduct that ought to be stopped at once. Any plans that cannot meet that test ought to be abandoned immediately.

It was logical that the organization which framed the test for labour should frame for the other side of the industrial field this one:

"Employers, inaugurate no industry policy which cannot be justified to the man risking his life on the firing line."

There is nothing involved about these tests. They are simple, clear, direct.

And the judge is an impartial one. The judge is the man at the front whose one object is to win the war for democracy. Whatever works against victory for democracy has no place in any free-man's life to-day.

As the American Federation of Labour sums it up:

"No action should be taken in the shops or in the field not in harmony with the purposes of the war."

If we can follow that test in American industry we shall bring the nation to its highest point of effectiveness in the war and bring it through the war in the highest possible state of democracy.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

Man Power and Production in Process Engraving.

SOME very interesting figures have been published by the War Service Committee for the process-engraving trade in the U.S.A.

Soon as America entered the war the Government called upon every trade to organise itself in such a way that it would be possible for the different departments to deal with a particular trade as a unit, and to effect this purpose each trade was to appoint a War Service Committee, consisting of both employers and employees, which was to be the medium of communication between the Government and the particular trade the Committee represented.

The process-engraving trade at once appointed a representative committee embracing both associated and non-associated employers, and union and non-union employees, so that every section of the craft was represented.

The committee at once set to work to gather together all the statistics of the industry they could find available, and to supplement them by further enquiries.

The results of their work as given in the report are extremely interesting, and as we think some of them may be useful in many ways to those who take more than a passing interest in the welfare of

our craft in this country, we extract the following :—

	£
The annual consumption of process copper in the U.S.A. ...	185,000
Ditto zinc	136,800
Ditto chemicals and other materials	456,428
Giving a grand total for materials	£778,228

Their investigation of the question of costs gave the following results, which are based upon averages, but which they say are approximately and substantially correct :—

	£
Year's cost of materials ...	778,228
Year's cost of direct shop labour	2,420,652
Year's cost overhead	1,684,744
	£4,883,624

They furthermore conclude from the figures produced that the average net profit on the turnover of the trade may be calculated at 10 per cent.

Turning to the question of man power in the trade, they give the following figures :—

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No. of Union journeymen ...	...	5,300
No. of Union apprentices under 21		
years of age ...	...	750
No. of Non-Union journeymen and		
apprentices ...	...	500
No. of office employees, executives		
and sales departments, etc. ...		2,100
Total ...	...	8,650
No. of commercial plants ...		525
No. of newspaper plants ...		115
		640

The report goes on to point out that though the photo-engraving industry by itself is neither large nor important it cannot be judged by these standards but by its relative importance, that is, its importance and influence upon all other industries which, says the report, "is stupendous and cannot be over-estimated." It then goes on to cite the effect produced by the use of process blocks on sales in one house in Chicago, whose sales during the past year were £36,000,000—every shilling's worth of which was sold through advertising and from a printed catalogue in which every article is illustrated.

"Practically all advertising to-day is illustrated. Ninety per cent. of all illustrations used in connection with advertising are produced by the photo-engraving process. To eliminate photo-engraving would take the very life blood out of advertising and business.

"After the war photo-engraving will be needed more than ever to help reap the fruits of victory. New markets will be sought and photo-engraving will help to find and develop them."

With such figures before them who can doubt the usefulness and importance to commerce of the slighted process block? Is it at last coming into its own as the true handmaid of all industry?

A Big Movement in Industrial Reconstruction.

MR. G. H. ROBERTS' hint at the Connaught Rooms as to developments in connection with Industrial Reconstruction has more in it than might appear at first sight. He pointed out that the time had now come when the efforts of the several bodies that had been formed to solve the industrial problem should be pooled and co-ordinated.

This is the first public announcement of a big scheme which is now nearing completion.

The Industrial Reconstruction Council and the Reconstruction Society have already formed a Joint Committee and planned a national campaign on the lines of the work which they have been doing for the past year, and which is having such a beneficial effect upon the attitude of mind of both capital and labour. There is no doubt that this first effort at co-ordination will meet with public approval, and will help to dispel the confusion which must inevitably arise when leagues and alliances, councils, committees and societies are all apparently preaching the same gospel and covering the same ground.

This is the right moment for concentrated effort. The country has at last woke up to the fact that peace is upon us and we are not ready—and that an industrial *modus vivendi* must be found if we are to grapple successfully with the problems which are facing us. It is undoubtedly the case that public interest in the whole movement for industrial organisation is greater than ever before. The two societies which are now joining hands have found it almost impossible to meet the demands made upon them for

speakers and literature, and at none of the numerous meetings they have held have they been able to accommodate all who have attempted to secure admission.

If this sort of thing goes on and can be extended, there is every prospect that a better understanding may arise between capital and labour, and that concerted action may yet be taken in time to allow us to reap the full fruits of the victory which is now so near at hand. We therefore welcome any movement which will give greater impetus to the missionary work which is still necessary.

RECONSTRUCTION LECTURES.

The series of lectures now being held by the Industrial Reconstruction Council is proving so popular that a second course has been arranged for next year. The first of these will be given by the Minister of Labour on Wednesday, January 8th, the Marquess of Crewe occupying the chair. Other lectures will follow at fortnightly intervals by Judge Edward Parry, Mr. Ernest J. P. Benn, Mr. J. R. Clynes, M.P., Professor A. W. Kirkaldy, and the President of the Board of Education. The chair will be taken on the respective occasions by Lord Balfour of Burleigh, the Bishop of London, Lord Leverhulme, Sir George Riddell, and the Lord Mayor of London. The lectures will again be held, by the kind permission of the Saddlers' Company, in the Saddlers' Hall, Cheapside, at 4.30 p.m. A full prospectus of the series can be obtained from the Secretary, I.R.C., 2 and 4 Tudor Street, E.C. 4, and applications for tickets should be made well in advance.

INDUSTRIAL CONFERENCES.

In view of the success which has attended the fortnightly Conferences and Discussions now being held by the Industrial

Reconstruction Council, and the universal demand for their continuance, a second series has been arranged for January, February and March of next year. They will be held on Tuesdays, as before, in the Hall of the Institute of Journalists, at 6 p.m.

The first, under the title of "Reconstruction of Restoration" will deal with the general principles which should guide us during the difficult transition period, and will be opened by Major H. J. Gillespie, D.S.O., on January 14th. The other meetings will discuss "The Workers' Interest in Costing," "The Place of the Merchant in British Industry," "Welfare Work," "Wages and Conditions of Employment in relation to future Industrial Prosperity," and "Industry and Educational Reconstruction"; the opening address in each case being delivered by Mr. A. Webster Jenkinson, F.C.A. (Controller of Factory Audit and Costs), Sir Charles McLeod (Chairman of the Imperial Commercial Association), Miss Newcome (Secretary of the Central Association of Welfare Workers), Captain James O'Grady, M.P. (Secretary of the National Federation of General Workers), and Mr. F. W. Sanderson, M.A. (Headmaster of Oundle School).

No tickets will be issued, but all those who intend to be present are asked kindly to inform the Secretary, I.R.C., 2 and 4 Tudor Street, E.C. 4, who will be glad to send a full prospectus of the series on application.

In good times or bad it pays to advertise, if it is done properly.—Mr. L. H. HARTLAND-SWANN.

Advertising is for the merchant who intends to be in business next year.—*American Exchange.*

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

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MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

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Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.

Telephone : 5596 Bank.

Telegrams : "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

DURING the month there have been four meetings of the Council, and the work has been of a very exacting nature, inasmuch as questions of great interest to the trade have been under discussion ; questions that have for long been on the agenda, and which have been discussed and considered from every standpoint, but so far without any successful result, not because they are impossible of solution, but because demands are made and persisted in that the Council feel would be detrimental to the best interests of the trade should they agree thereto, and as they are the guardians of those interests it is felt they must hold fast to the position they have taken up.

Perhaps the most important matter that has come before the Council for consideration during the month is the question of the contract with H.M. Stationery Office for the production of illustrations for the use of the Government.

The position taken up by the Council has consistently been that the Government should have the same terms as the largest private purchaser : that is, that they should purchase at the scale rate minus the discounts allowed to publishers, etc., using quantities of illustrations exceeding £1,000 per annum.

For some months past this question has been under discussion, and after looking at it in all its bearings the Council have from time to time come to the conclusion that they could not alter their decision, viz., that they could not accord the

Government better terms than anyone and everyone else.

Considerable correspondence has taken place in this matter and deputations have visited the Stationery Office and have discussed the question with the Controller and his subordinates, but have failed to convince them that the position taken up by the Council is just and equitable, they contending that it is their right to set house against house and indulge in unrestricted competition, which would of course throw the trade back into the slough from which the Federation at great cost of time and money has extricated it.

On what ground the Government, who by the way demand that their blocks shall be made under Trade Union conditions, consider they have a right to be treated to more favourable terms than any private buyer to a like amount, we fail to appreciate. Neither have they attempted to justify such a claim, but content themselves by doing all they possibly can to enforce it without making any attempt at justification, except that they are spending public money—even going so far as to hint that under D.O.R.A. they have large powers which could be called in to their assistance should the necessity arise.

These hints at what might be, had little effect upon the members of the Council, all of whom felt they had steered a straight course—one they could justify to all concerned if called upon to do so.

It was, however, felt that the matter was of such importance that it was best to call a general meeting of the whole trade, so that it might be fully discussed and a course decided upon, either that adopted by the Council or some other consistent with the objects of the Federation, and which the Council would be empowered

to carry out whatever the result might be.

This meeting was held on Wednesday, November 13th, and resulted in a complete justification of the position taken up by the Council.

A question of much interest to our employees was brought to light through a letter received from a country house. By some unfortunate accident a dispute had arisen between one of the workmen and the employer respecting the annual holiday, the employee claiming payment in lieu of holiday in excess of what the house considered it was liable for, the claim not being made till some time after the employee had left the service of the house against which he was claiming.

We are not dealing with the merits of the case here, but using it to emphasise the importance of seeing that the agreements are strictly carried out both in spirit and letter, for during the consideration of the matter it was stated most emphatically that some employers did not give sufficient notice to their employees as to the likely date on which they could take their annual holiday; in fact, it was asserted that in some cases the first intimation that some men received that they were to take their holiday was when they received their week's pay, thus effectively preventing them making any arrangements for the enjoyment thereof.

The opinion of the Council is that every employee has a right to reasonable previous notice that he is expected to take his holiday on a given date. What that reasonable notice is must be left to the discretion of each individual firm, but it would appear that at least a week or two would be reasonable.

A more excellent plan is that adopted in most of the best organised houses in

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the trade, viz., early in the summer months—or probably late in the spring—a list of holidays is drawn up in consultation with the employees, and such list is posted on the notice board in the works. Thus every employee has ample time in which to make arrangements for the proper enjoyment of the holiday given.

It is, of course, possible that circumstances may compel the arrangements to be altered somewhat, but when such is the case it is easy to so adjust matters to the convenience of all concerned that there shall not be any hardship.

So far as we are aware every house that has adopted some such plan as this has found it work admirably, and give every satisfaction. We therefore heartily recommend it to the attention of every firm in the trade.

A matter of very considerable interest to the whole of the Process Trade was suggested to the Council by our President, viz., the establishment of a memorial to perpetuate the memory of those members of our craft who have made the supreme sacrifice, and to bear testimony to the patriotism of those who have taken part in the World War.

The suggestion met with a very cordial reception and led to an earnest discussion as to the best way to secure the purpose aimed at, and to raise the funds required.

Various suggestions were considered, but that which found greatest favour was in the direction of taking part in the extensions of a Holiday Home, part of which would be reserved for process workers who had been laid aside and were again convalescent.

A sub-committee was appointed to investigate and report to the Council; full particulars of the proposed scheme will be sent to process houses in a few days.

British Industries Fair, 1919.

FOR next year's British Industries Fair the Board of Trade have again been able to secure from the Port of London Authority the great warehouses in Pennington Street which proved so highly satisfactory for the Fair held at the beginning of this year.

The Fair will open as usual on the last Monday in February (February 24th) and will remain open until Friday, March 7th.

In order in no way to interfere with necessary work the Fair will again be restricted to the same trades which have participated in the last three Fairs, namely :—

Glass and Pottery.
Paper, Printing and Stationery.
Fancy Goods.
Toys.

As in past years, the invitations to visitors to the Fair will be issued by the Board of Trade and admittance will be restricted to bona fide buyers interested in the above trades.

Over 2,000 forms of application for space have already been issued to manufacturers in the trades concerned, and it is expected that the number of firms anxious to participate will be considerably in advance of last year, when orders to the value of over a million and a half were placed. Eligible manufacturers who have not received application forms should, if they wish to participate, communicate at once with the Director, British Industries Fair, Board of Trade, 10 Basinghall Street, London, E.C. 2.

Employer's Duty in the Reconstruction of the Crippled Soldier.

WE must count on the return from the front of thousands of crippled soldiers. We must plan to give them on their return the best possible chance for the future. Dependence cannot be placed on monetary compensation in the form of a pension, for in the past the pension system has proved a distinct failure in so far as constructive ends are involved. The pension has never been enough to support in decency the average disabled soldier, but it has been just large enough to act as an incentive to idleness and semi-dependence on relatives or friends. The only compensation of real value for physical disability is rehabilitation for self-support. Make a man again capable of earning his own living and the chief burden of his handicap drops away. Occupation is, further, the only means of making him happy and contented. Soon after the outbreak of hostilities the European countries began the establishment of vocational training-schools for the rehabilitation of disabled soldiers. They had both the humanitarian aim of restoring crippled men to the greatest possible degree and the economic aim of sparing the community the burden of unproductivity on the part of thousands of its best citizens. The movement had its inception with Mayor Edouard Herriot of the city of Lyons, France, who found it difficult to reconcile the desperate need for labour in the factories and munition works with the fact that men who had lost an arm or a leg but were otherwise strong and well were idling their time in the public squares. He therefore induced the municipal council to open an industrial school for war

cripples which has proved the example and inspiration for hundreds of similar schools since founded throughout France, Italy, Germany, Great Britain, and Canada.

The disability of some crippled soldiers is no bar to a return to their former trade, but the injuries of many disqualify them from pursuing again their past occupations. The schools of training prepare these men for some kind of work in which their physical handicap will not materially interfere with their production.

The education of the adult is made up largely of his working experience. The groundwork of training in his past occupation must under no circumstances be abandoned. The new trade must be related to the former one, or be, perhaps, an extension of specialisation of it. For example, a man who had done manual work in the building trades may by instruction in architectural drafting and the interpretation of plans be fitted for a foreman's job, in which the lack of an arm would not prove a serious handicap. A trainman who had lost a leg might wisely be prepared as a telegrapher, so that he could go back to railroad work, with the practice of which he is already familiar.

Whatever training is given must be thorough, for an adult cannot be sent out to employment on the same basis as a boy apprentice. He must be adequately prepared for the work he is to undertake.

The one-armed soldier is equipped with working appliances which have supplanted the old familiar artificial limb. The new appliances are designed with a practical aim only in view; they vary according to the trade in which the individual is

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to engage. For example, the appliance for a machinist would be quite different from that with which a wood-turner would be provided. Some appliances have attached to the stump a chuck in which various tools or hooks can interchangeably be held. The wearer uses these devices only while at work; for evenings and holidays he is provided with a "dress arm" which is made in imitation of the lost natural member.

An important factor in the success of re-educational work is an early start, so that the disabled man shall have no chance to go out unemployed into the community. In even a short period of exposure to the sentimental sympathy of family and friends, his "will to work" is so broken down that it becomes difficult again to restore him to a stand of independence and ambition. For this reason, therefore, the plan for his future is made at as early a date as his physical condition admits, and training is actually under way before the patient is out of the hospital.

In the readjustment of the crippled soldier to civilian life, his placement in employment is a matter of the greatest moment. In this field the employer has a definite responsibility.

But the employer's duty is not entirely obvious. It is, on the contrary, almost diametrically opposite to what one might superficially infer it to be. The duty is not to "take care of," from patriotic motives, a given number of disabled men, finding for them any odd jobs which are available, and putting the ex-soldiers in them without much regard to whether they can earn the wages paid or not.

Yet this method is all too common. A local committee of employers will deliberate about as follows: "Here are a dozen

crippled soldiers for whom we must find jobs. Jones, you have a large factory; you should be able to take care of six of them. Brown, can you not find places for four of them in your warehouse? And Smith, you ought to place at least a couple in your store."

Such a procedure cannot have other than pernicious results. In the first years of war the spirit of patriotism runs high, but experience has shown that men placed on this basis alone find themselves out of a job when the war has been over several years, or, in fact, after it has been in progress for a considerable period of time.

A second weakness in this method is that a man who is patronised by giving him a charity job comes to expect as a right such semi-gratuitous support. Such a situation breaks down rather than builds up character, and makes the man progressively a weaker rather than a stronger member of the community. We must not do our returned men such injury.

The third difficulty is that such a system does not take into account the man's future. Casual placement means employment either in a makeshift job as watchman or elevator operator such as we should certainly not offer our disabled men except as a last resort—or in a job beyond the man, one in which, on the cold-blooded considerations of product and wages, he cannot hold his own. Jobs of the first type have for the worker a future of monotony and discouragement. Jobs of the second type are frequently disastrous, for in them a man, instead of becoming steadily more competent and building up confidence in himself, stands still as regards improvement and loses confidence every day. When he is dropped or goes to some other employment the job will have had for him no permanent benefit.

Twelve men sent to twelve jobs may all be seriously misplaced, while the same twelve placed with thought and wisdom and differently assigned to the same twelve jobs may be ideally located. If normal workers require expert and careful placement, crippled candidates for employment require it even more.

The positive aspect of the employer's duty is to find for the disabled man a constructive job which he can hold on the basis of competency alone. In such a job he can be self-respecting, be happy, and look forward to a future. This is the definite patriotic duty. It is not so easy of execution as telling a superintendent to take care of four men, but there is infinitely more satisfaction to the employer in the results, and infinitely greater advantage to the employee. And it is entirely practical, even in dealing with seriously disabled men.

A cripple is only debarred by his disability from performing certain operations. In the operations which he can perform, the disabled man will be just as efficient as his non-handicapped colleague, or more so. In the multiplicity of modern industrial processes it is entirely possible to find jobs not requiring the operations from which any given type of cripples is debarred. For such jobs as they can fill the cripples should be given preference.

Thousands of cripples are now holding important jobs in the industrial world. But they are men of exceptional character and initiative and have, in general, made their way in spite of employers rather than because of them. Too many employers are ready to give the cripple alms, but are not willing to expend the thought necessary to place him in a suitable job. This attitude has helped to make many cripples dependent. With our new res-

pensibilities to the men disabled in fighting for us, the point of view must certainly be changed. What some cripples have done, other cripples can do--if only given an even chance.

The industrial cripple should be considered as well as the military cripple, for in these days of national demand for the greatest possible output there should not be left idle any men who can be made into productive workers.

With thoughtful placement effort, many men can be employed directly on the basis of their past experience. With the disabled soldiers who profit by the training facilities the Government will provide, the task should be even easier.

This, then constitutes the charge of patriotic duty upon the employer:

To study the jobs under his jurisdiction to determine which ones might be satisfactorily held by cripples. To give the cripples preference for these jobs. To consider thoughtfully the applications of disabled men for employment, bearing in mind the importance of utilising to as great an extent as possible labour which would otherwise be unproductive. To do the returned soldier the honour of offering him real employment, with opportunity for advancement.

If the employer will do this, it will be a great factor in making the complete elimination of the dependent cripple a real and inspiring possibility.

WEIGHING IN SEMI-DARKNESS.—The glass measure has an aptitude of eluding one's vision in the dark-room. It is forced to reveal itself if we provide it with a coating of white enamel paint on its foot and around its upper outside edge. This is one of those absurdly obvious hints which the erudite miss.

How to Squeegee Prints.

THE users of glossy P.O.P. find that it is not always easy to secure a brilliant glossy finish on their prints unless they are squeegeed to a regular ferrotype plate. These plates are simply sheets of iron coated with a very glossy Japan varnish. To prepare them for use one makes a solution of white wax—either paraffin wax or stearic acid—in benzol. A little of this is put on a piece of soft cotton or flannel cloth and rubbed all over the prepared surface of the plate. The print should invariably be fully dried after the final wash, as this gives a harder surface than if they are taken directly from the wash water and put down on the ferrotype plates. Most papers require hardening in a separate 10 per cent. ordinary (potash) alum bath for ten or fifteen minutes after they are toned and fixed, and before the final washing. Unless this extra hardening is given and the prints afterwards thoroughly dried, they are almost sure to stick to the ferrotype plate.

When ready to squeegee, one first puts the prints into clean water until they are limp, and then, taking them one by one, puts them on the plate in the following manner: Hold the print by two corners diagonally opposite so that it assumes a U-shape, and lower the loop of the U gently to the surface of the plate. Then let first one corner and afterwards the other gently down and take a rubber squeegee, which is simply a strip of soft velvet rubber set in a wooden handle, and smooth the print out gently from the centre to the corners, so as to force out any air bubbles. When a plate is full, take a

sheet of pure photographic blotting-paper and a print roller and remove the superfluous moisture from the prints. The plate must then be stood in a warm place until the prints are bone dry, when it will be found that if one inserts the point of a knife under the corner they will spring readily from the plate. Failure to do so is due either to insufficient hardening or improper preparation of the plate with the waxing solution; but even properly hardened prints will often stick unless first dried and then re-wetted before ferrotyping.

Photographing Cut Glass Ware.

GET a wooden box; take off the lid and knock out the bottom, then line the inside with black velvet or any smooth black or red material. Stand this box on the side away from a white background and place the cut glass object inside the box. Some of the facets will reflect the dark material, others will reflect the white light, with the result that the cuttings will show up clear and sharp and the glass will really look transparent; while if it is sprayed with an air-brush as is customary it will get the appearance of dull chinaware unless an artist in retouching the photograph puts some sparkle in it.—*The Professional Photographer.*

MR. GROUCH: "I see that old firm has failed in business; now did it happen?"

MR. WISE GUY: "Too much advertising."

MR. GROUCH: "But he never advertised!"

MR. WISE GUY: "No; but his competitors did."

How to Treat Troubles.

THERE are two kinds of troubles — (1) Yours, and (2) Other People's.

Usually, your attitude is to sympathise with yourself when you have trouble, and to laugh at other people when they have trouble.

Your troubles are tragic ; other people's are comic. Isn't that so ?

If you sit on another man's hat, how funny ! But if he sits on your hat, how abominable !

Now, this attitude towards trouble is wrong. It is just the reverse of what it ought to be.

The right attitude towards trouble is not to sympathise with yourself and to laugh at others. It is to **SYMPATHISE WITH OTHERS' TROUBLES AND TO LAUGH AT YOUR OWN.**

Try it. It is the professional way to treat troubles ; and, incidentally, it will make you very much beloved and very prosperous. --H. N. CASSON.

Worry, not Work, kills Men.

By Edward N. Dingley.

WORRY kills ; work never. When we say that a man is suffering from overwork, we mean from over-worry.

To a normal man or woman, work stimulates and invigorates. It is a tonic ; just as idleness is a disintegrating disease.

God bless the man who invented work ! It is a cure for most ailments ; it banishes the blues, helps digestion, and builds character.

The man who has nothing to do is miserable and usually a nuisance to society. He never helps in the building of a town ; he finds fault with everything and everybody, and ends by hating himself worse than everybody else hates him.

Work builds up and makes strong the brain cells ; worry wears them out and destroys them.

The man who can work and not worry is rich indeed. The man who worries all the time seldom works—that is, seldom works efficiently and well.

Worry is a disease and should be so treated. It is also a habit and should be crushed early in life.

We are all creatures of habit, like the other animals ; and habits grow stronger and stronger until they grip us with a strength overpowering.

In the fierce conflict of business, where the only golden rule is the golden dollar, men go down not from work but from worry. The competitive system of existence, the apparently accepted rule of "the survival of the fittest," makes life a hell on earth to most people, until they learn not to worry.

Money is the goal of every business man ; and the more he gets the more he worries, not from fear that he cannot get more, but from fear that somebody else will get it away from him.

The business world is usually hard and cold ; and he who enters leaves all hope of peace and joy behind. Why ? Because it is warfare from start to finish ; and war means worry.

Some people are anticipating trouble all the time, and for that reason worry incessantly. Some people think they cannot help worrying ; but they have never tried crushing it under foot.

Worry will turn the sweetest cream sour.

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Worry will bring wrinkles, dim the eye, and rust the brain.

Worry never earned a dollar or paid a bill.

Worry never softened the heart of a creditor or paid a note.

Work is the wellspring of genius ; worry is the source of failure and defeat.

When the day's work is over, don't worry. Go to sleep and let the other fellow do the worrying.

Light Paint and Clean Workshops.

ONE of the essentials of a modern factory is sanitation, and manufacturers are coming to the conclusion that the chief aid to sanitation is the liberal use of paint. The prevailing idea of a decade ago that the best way to get rid of dirt was to sweep it into a dark corner has given place to the belief that all dark parts of the factory interior should be painted a light gray or white.

IMPROVED SANITATION.

This method allows the dust and scraps to be easily seen against a white background, and the sweepers in their daily round of the factory are less likely to skip the dark corners. As a result of this use of paint the appearance of factory interiors has been considerably improved and the health of the workers has been likewise bettered due to

ABSENCE OF DISEASE BREEDING GERMS.

The presence of these germs or bacteria, as the scientists term them, is the real danger resulting from the accumulation of dirt. Although, of course, the presence of dirt in corners detracts from the cleanli-

ness and appearance, the vital consideration is the possibility of contagion among the employees, resulting from the growth and propagation of disease carrying bacteria which live in the dirt.

LIGHT PAINT INCREASES LIGHT.

With the end in view of removing the dirt and bacteria, factory owners and superintendents have made the painting of all corners and dark places of the building compulsory at regular intervals. The result obtained in better sanitation has amply paid for the expenditure for paint materials and labour and, as one manufacturer says, "The paint makes the dirt keep moving." Besides, light-painted walls add light to any plant.

High Wages.

IT is not enough to pay high wages. If all the workers in this country had their wages doubled this could not help them unless at the same time their output is increased. If we raise wages without raising output, what is the result? The prices go up and the worker gets no benefit from the high wages. Workers are finding this out at the present time.

What does it matter to a worker if he gets twice as much money in his pay envelope, if he finds that he has to pay twice as much for everything at the grocer's shop?

So, the only way to benefit workers is by increasing the output. This keeps prices down. There can be no improvement, either for workers or employers, without increasing the output. No matter which way we look, we cannot get away from the question of increased efficiency.

—*Exchange.*

The Process Engraver's Monthly

**The Official Organ of the Federation of Master
Process Engravers.**

FOUNDED BY
H. SNOWDEN WARD, F.R.P.S.

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JANUARY,
1919.

THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

The Year of Glorious Opportunity.

THE passing days have once more brought us to the commencement of another year, a year that may well be described as the most glorious year in the history of the British Empire.

There have been great historical events in other years, but the conclusion of peace in 1919 must surely stamp this as the most glorious year we have ever known.

If so, then what does it mean to us?

In order to get a proper perspective from which to view the question, let us take a brief survey of the past twelve months. How much of care and anxiety there has been; how much of hope and fear, all of which have made business one of the most difficult problems possible, and in the handling of which mistakes have been inevitable.

We shall not soon forget the anxieties with which we faced the year that has just closed. How the drain upon our staffs was continued, the uncertainty as to the volume of business procurable, the practical impossibility of securing materials with which to carry on, the dark days when it seemed as though the fight was to be too great, when it was too difficult to maintain the position satisfactorily, when customers were feeling alarmed—what patience, what determination, what faith, these problems called into play; yet when viewed in the light of the heroic efforts being made by

so many of our fellow workers engaged in the greatest conflict of all time, and compared with the valour and self-sacrifice being enacted in that fight for freedom, how insignificant a place they occupy in the year's experiences.

Yet with all the darkness and anxiety there was the fact that we had come safely through the previous year—equally full of care—therefore, what had been done could be done again, and the confidence gained by difficulties surmounted gave fair promise that with a display of similar qualities the new year might not be any worse than its predecessor; and now that we are able to review the work of the past twelve months we can devoutly say, Thank God it has been better than all our fears, for to-day we stand on firmer ground than we have known at any time during the past four years.

And so the year has passed into history, and TO-DAY WE FACE A NEW YEAR, and feel we do right in calling it the Year of Glorious Opportunity, for whenever were there such opportunities for bridging the gulf that has existed for so long between class and class—for laying afresh the foundation of commerce upon a broader and more equitable basis, for shewing in innumerable ways our practical sympathy with our fellows, of facing and conquering new problems, the setting up of new ideals, of creating a new out-

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look and embracing new openings—all these and a host of other thoughts crowd upon us and compel one to say: I is good to live in this year of glorious opportunity, and to have a share in rebuilding the business life of the nation and so help to make better conditions for those who follow us.

THEN WHAT OF THE COMING YEAR? What shall it be? We have a presentiment of what it may be, we think we know what it can be—but what shall it be? is the question that meets us at every turn, the question that we must face and must answer.

The re-arrangement of business to meet war conditions was full of difficulty, but the problems of reconstruction present greater difficulty and call for greater power of organisation, greater foresight, greater penetration—they call for the supreme power of our manhood. Nothing less will be of any use. Are we prepared to give this, or do we hope to shuffle through somehow in the expectation that by some lucky chance things will turn out all right? Each of us can determine what we will make of our little patch in the world of commerce, and upon our decision to do what we can, or neglect to do it, depends the success or failure of that portion of the business world allotted to our care. What is your answer?

Among the new problems facing us in this year of glorious opportunity are that of reconstructing our business arrangements so as to meet the aspirations of those associated therewith, of absorbing the labour being thrown upon the market daily, the difficulty of dealing fairly by those desiring to return to us after the war (one of the most difficult tasks possible), the problem of a superabundance or shortage of orders whereby we

may be able to absorb the labour available—all these and many other questions must be dealt with in a statesmanlike manner, otherwise disaster may ensue.

New ideals have been set up by the conditions brought about by the war, ideals which large masses of the population will desire to maintain. How this is to be done presents a problem that will be difficult to solve. New ideals are set before those engaged in our own craft, for no longer does the degrading competition on price hold sway, but for the future the higher competition in quality and service is the ideal set before us, and does not the solidarity of the craft, both on the part of the employers and employees, compel us to abandon the old ideals and replace them with something infinitely higher and better?

In all probability there will be almost limitless possibilities for expansion occasioned by the need for overtaking the arrear of the past four years, but more particularly through the enormously increased demand for production in all departments of industry, in consequence of the increased output that must follow if the labour hitherto unskilled but now partly or wholly skilled in various directions is to be absorbed. This will call for great ability and high organising power, and presents very great possibilities.

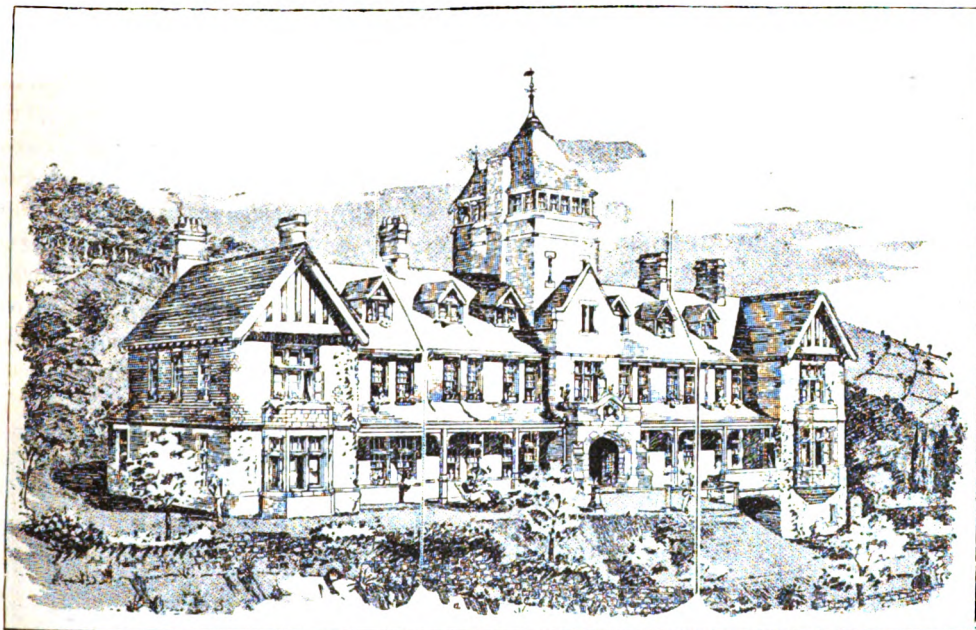
Here, then, are some of the glorious opportunities confronting us. Let us make golden use of them and translate them into great successes. Let us one and all rise to the height of our opportunity, and so do our share in leading our fellows into this glorious future so that the year's history may bear record that we each and all have done what we could in this year of glorious opportunity.

Sanatorium for Workers in the Process Trade.

The Process Workers' War Memorial.

WE do not think there can be two opinions respecting the desirability of commemorating in some way or other the part process workers have taken in the great war, and the raising of a permanent memorial to the memory of those of our comrades who have fallen.

This received very careful consideration, and it was agreed that the most suitable memoria' to those who had fought and fallen would be some method of helping those who engaged in the same trade have been stricken down by sickness, and who on recovery need fresh air and rest



War Memorial Wing.

[From a Sketch.]

The inception of the idea came from the fertile brain of our President, A. Dargavel, Esq., who, when considering the question, felt so impressed with the desirability of the trade as a whole doing something in this direction that he put out a few feelers to those in touch with trade matters, and getting a fair amount of encouragement put the suggestion before the Council, who received it with so much enthusiasm that he proceeded to outline a scheme, at once bold and effective, and which could be put into operation almost immediately.

so as to recuperate and be refitted for their daily work.

It was unanimously agreed that a convalescent home would best meet the desired object, but it was fully realised that a small trade such as process could not support a home such as that shown in our illustration, whilst to provide anything less would not meet the necessities of the case, for if workers are to recuperate in any reasonable time good company and generous surroundings are necessary.

In our illustration it will be noted that the building is divided into three portions

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by horizontal lines running through it. The centre portion is the Caxton Convalescent Home at Limpsfield, Surrey, as it stands to-day. It came to our President's ears that it was proposed to extend it by adding the wings at either end of the main building, and at once the idea struck home: Cannot we join in this extension and so make part of the new wing the memorial desired? Communications were at once opened with the Committee of the Caxton Home, who very heartily welcomed our co-operation, and entered into the project with all the earnestness possible.

Careful enquiries having been made and the prospect being found satisfactory, it was decided to launch a scheme in order to carry into effect the suggestions previously referred to. Of course the first thing to do was to arrive at an amount it was thought the trade could raise.

will easily make up the balance of the £1,000.

The position at Limpsfield was thoroughly examined by competent medical authorities before the home was built, and experience has but confirmed the opinion; given viz. that it is the most ideal spot for the purpose intended within easy reach of the Metropolis. Its pure air and nearness to pine forests make it a health-giving spot that would be difficult to surpass.

The centre portion of the building already erected at a cost of £6,000 provides accommodation for thirty visitors, all the year round, and the new wing will provide for 20 more, part of which will be reserved for process workers from any part of the country, and a dormitory will be designated the "Process Trade Ward" and a memorial tablet erected, probably in one of the corridors or dining room containing a special Roll of Honour.



The Reception Room.

Some thought £1,000, others thought £500 might be as much as we could raise. It was therefore left at any amount between these two, but nothing less than £750, and as the individual firms on the Council of the Federation have already promised £550 between them, it looks as though the other ninety houses in the trade



The Dining Room.

Our illustration of the dining hall gives some idea of the comfort provided for those who go there for rest and recuperation, and so far as we are able to form an opinion we feel we can very heartily recommend the scheme, not only to the heads of houses but to the generous sympathy of all our readers.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. F. H. VAUS,
Messrs. Vaus & Crompton, Ltd.,
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Treasurer—

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Telephone: 5596 Bank.
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The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The President's New Year Message.

THE Editor has, with the advent of another year, again offered me the hospitality of his columns to enable me to say a few words of greeting to my fellow members of the Federation, most of whom I have now got to know and learned to appreciate. We have been brought together by the growing need for co-operation and self-protection, and as a result we have added largely to our knowledge of human nature; and this knowledge has given us a tolerance and a generosity of thought towards each other, which in the old days seemed unattainable by any conceivable means. Much kindness and bigness of heart have been brought to light as well as splendid capacity and strength. The manifest intention of all to take the straight and only course in matters connected with our trade agreement has caused a happy feeling of confidence all round.

With the coming of another year—a year which bids fair to transcend in greatness any we have known, we are facing a new and wonderful prospect. Conditions have materially changed, old landmarks have disappeared, everything is delineated afresh. We have to adapt ourselves to new circumstances and to the perpetuation of great changes which have already taken place in social and business conditions, in political and international relations.

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If the War has taught us anything it is that we cannot expect to go on in the old way or revert to the old bad conditions. The sufferings and anxieties of these years of trial have created an unbreakable bond between all sections of the community, which, if opportunity is not wasted, must surely be turned to good account. A spirit of union has been evoked which will be maintained for the benefit and example of mankind.

Now that peace has come we should each live up to this spirit and take our share and responsibility in the work of rebuilding a broken world.

Process-engravers have taken an honourable part in the war and the work of "carrying on" through the long period of anxiety which came with it. Our men have played their part, enduring unspeakable hardships and horrors, and many have paid the full price; while those who were left behind performed their duties with loyalty and took their share of the grinding burden of anxiety and grief. The war has been won, in the main, by the "plain people," and it is for us to pledge ourselves that such benefits as have been secured to the "plain people" of our industry by our trade agreement will be maintained, safeguarded, and further developed as long as the trade lasts.

Bound up with the ideal of a League of Nations is another, not less great, that all classes and individuals within each nation should work for the common good. Is it too much to hope that each individual in our trade—master or man—should contribute by thought, word, or deed to the general welfare of our community?

The time for purely selfish considerations has gone by. The idea of trade Councils is making headway amongst

the industries of the country, by means of which it is hoped that distrust and suspicion which have so long tainted the relationship between employers and employed may be swept away, and that frank and open discussion of every question connected with industry may result in a better understanding and improved conditions for all concerned.

I may be forgiven for recalling that in 1916 a few members of our trade were bold enough to initiate the scheme which brought the whole industry to an orderly and self-respecting condition. The results which have been achieved have shown how the interest of both traders and men are interdependent, and what may be accomplished by occasional meetings and the exchange of ideas. Though we have not yet been formally registered as a Joint Industrial Council, our machinery has in fact provided such a council to all intents and purposes, and the relations between employers and men have been such as to encourage the best hopes for the future.

The point I would advocate is that our obvious duty to the "plain people" in our trade who have helped to win the war, is to see that the improved status to which they have been raised by our trade agreement is never to be lost or jeopardised by laxity on our part.

Amid the flood of business which is surely coming subtle inducements may be offered here and there to evade the strict terms of the price schedule; attempts will not be lacking on the part of interested individuals to effect a breach in the so called "ring."

To resist such influences will be the plain and serious duty of us all so that we may be true to each other, loyal to the workers, and faithful to the whole spirit

of the agreement, which for over two years has proved its worth and produced such wonderful results in the general betterment of conditions throughout the trade.

Unless all the signs are wrong we are entering on a busy year. That all my fellow members may have a generous share of the happiness and prosperity it may have to yield is my sincere and cordial wish.

A. DARGAVEL.

The Council at Work.

SINCE our last report some very valuable work has been accomplished at the various meetings of the Council.

Of course, the Christmas festival season reduced the number of meetings held, but this was more than compensated for by the importance of the work done.

One of the most interesting and useful meetings was that at which delegates from the Men's Society met the Council to discuss various questions that had been accumulating for some time, the practice being to take note of such matters until a convenient time can be arranged at which they may be discussed and cleared up.

One such meeting was held early in December at which frank and full discussion of all outstanding subjects took place and decisions were arrived at which it is felt will be for the benefit of the trade as a whole.

One of these matters which affect the employers and employees alike is the position created by the very heavy increase in wages that has taken place throughout the trade during the past two or three years. It was felt that the time had come when the position of the employers

under the National Insurance Act should be cleared up, so that the Council might give a definite ruling by which the members might be guided.

The position may be stated as follows :

With the increases in wages of recent times the position of employees earning over £160 per annum under the National Insurance Act has needed to be made clear, and by agreement with the Men's Society a test case has been taken up by an Inspector of the National Health Insurance Commissioners, who visited and reported on men employed by a northern firm. His opinion was that routers and mounters and line etchers were employed by way of manual labour (which means that they must be compulsorily insured under Part I. (Health Insurance) whatever they may earn). The Inspector reported that there was some doubt whether operators were so employed, and the Commissioners have written saying that it was hoped that operators would be included. Still the Commissioners don't give a definite decision on their Inspector's report, and the Society, in order to come to a complete decision in regard to workers throughout the whole trade has asked the Federation to agree with them (the Society) that mounters, routers, line etchers, operators and proofers shall all be deemed to be employed by way of manual labour and insured accordingly no matter what their pay. The Council have so agreed, and a joint letter has been sent to the Commissioners for record.

It will be within the recollection of the trade that according to the decision of Mr. Justice Warrington on April 11th, 1913, artists and lithographic draughtsmen, engravers and finishers and fine etchers are not employed by way of manual

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labour, and therefore if paid over £160 per annum are not to be compulsorily insured. It was pointed out at the conference with the Society's delegates that a man who has been compulsorily insured for five years may continue voluntarily and even if he discontinues insurance on reaching the £160 pay will be continued in certain benefits for one year afterwards.

In regard to Part II. Unemployment Insurance a case was mentioned in which an Inspector had called at a firm and required that routers and mounters should be insured under the unemployment section, as he said they were "wood-workers," and in fact demanded (and got) back payment of the insurance.

It is now pointed out that under decision by the umpire Mr. W. B. Yates, dated 12th September, 1916, No. 1821, contributions under the National Insurance Part II. Munition Workers Act, 1916, *are not* payable in respect of workmen engaged in stereotyping, electrotyping and process work, and under decision 2133, February 16th, 1917, are not payable in respect of workmen who are engaged in any process of engraving in connection with the printing and stationery trade.

In our last report we referred to the Summer holiday arrangements embodied in the trade agreement, and pointed out that in some cases difficulties had arisen which had not been foreseen, consequently some slight alterations in the wording of the same might tend to improvement.

Full particulars have been sent to every process house in the Federation, so that by the time this report is in the hands of our readers those particulars will be available.

To put the matter briefly, it seemed to boil down to the question whether the

holiday year should count from May 1st or July 1st, and as the latter is the nearest to the general holiday season it was decided that the holiday year shall count from July 1st in one year to June 30th the next year, so that any employee leaving for another sphere of usefulness between those two dates may now have a definite date from which to reckon instead of a shifting date governed by his previous holiday.

One very strong point made by the representatives of the Men's Society was in the direction of the men taking the annual holiday rather than taking a money payment in lieu thereof; it was felt that the rest and holiday change is far more beneficial to the men's health than continuing at work and receiving the money payment. So as to secure this holiday to the employee, it was arranged that the liability could be carried over from one employer to another; that is, if an employee had served say four months in one house, and the remaining eight months in another, the two employers might arrange the financial part of the matter between them, the first paying over to the second an agreed amount representing the time served in his house, and the employee when getting his holiday looking to his then employers for the full week's wages. This arrangement, of course, is not compulsory and is dependent entirely upon a mutual understanding at the time of leaving.

Attention is once more called to the advisability of making holiday arrangements as early in the year as possible so that each employee may have reasonable notice as to when it will be convenient for him to take his holiday. The extremely short notice which it is alleged is given in some few houses, is very unfair

to the employee and the Council would like to see it abandoned.

A matter that will need very careful handling during the next year or two is that of former employees who joined the Army and wish to return to their previous employers, but who have been damaged in the war.

Every employer will naturally desire to do the best he possibly can for those who were called upon to leave him to serve in the Army, but in many cases the employee cannot resume the particular branch of the business in which he was formerly employed; or if he can he probably is not able to meet the demands that are made upon a fully qualified journeyman.

In cases of the kind the question arises: How is such a man to be dealt with? The agreement between the Society and the Federation secures to every employee a given minimum standard of payment, which of course supposes that the employee is capable of giving full and efficient service for that payment. It would, therefore, be manifestly unjust to expect the employer to pay these full wages to any one who fell say 35 per cent. to 50 per cent. below that standard, yet the officials of the Men's Society are very keen upon maintaining the full minimum wage of their members, and look upon any action that might bear the semblance of an attempt to break it, with the greatest suspicion. It would, however, be equally unjust to the employee to turn him adrift and say he should not be employed at all at his old trade. What then is the best that can be done for him?

After considering all the points it was eventually agreed that in such a case a period of twelve months' probation should be allowed such an employee at a wage to be mutually agreed upon by the employer

and himself, but that every three months during such year the employer should discuss the arrangement with the Chapel or with the man's fellow-workmen. If at the end of twelve months he proves himself efficient, he must be paid the full minimum wage. If, however, he is still inefficient, the matter must be reported to the Federation who will discuss it with the officials of the Men's Society and endeavour to come to some satisfactory arrangement, each case being treated strictly on its merits, there being no possibility of making any general rule that shall apply in every case.

Another matter that will need very careful handling is the position of those youths who had to leave process houses for the war, who were not indentured apprentices, but were in the position of learners.---This class of worker will in future disappear, as all who make process their life's work must now be duly apprenticed—and not being qualified journeymen could not be members of their Society. Some of these youths of, say, eighteen, who joined the army nearly five years ago, are now married men over twenty-one years of age.

Now the Men's Society has assumed that these learners when they become twenty-one years of age would have had such a grounding in the work of their particular department that they would be able to take the position of a fully qualified journeyman. It must however, be apparent to everybody that a lad who spent some three or four years in a process house just picking up what knowledge he could, without any special teaching and who then had to lay it aside completely and spend the next three or four years soldiering cannot by any means be expected to come back to the

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Trade as fully qualified, and be paid the full minimum wage of such a journeyman. What then is to be the position of such a worker ?

Here again it is impossible to lay down any definite rules that shall govern every case. Consequently it has been arranged that every such case shall be carefully considered on its merits with a view to safeguarding the interests of the individual, the employer and the trade as a whole. Whenever such cases arise communications should be made at once with the Secretary of the Federation, and the matter will be discussed with the Men's Society, and proper arrangements made so that the employee may in the shortest time possible become fully qualified.

Two matters affecting apprentices were discussed, and arrangements made, in the first case for a uniform apprenticeship agreement for use throughout the trade, with definite scales of wages to be paid in London and in the country during each of the five years of the apprenticeship ; it was felt most desirable that this matter should be put upon a sound and business-like footing, and every employer throughout the trade will do well to use no other form of apprenticeship than that provided by the Federation.

The other question was : How are apprentices who were called to the War affected and what is to be their position when they return ?

The arrangements made were as follows :

1. Apprentices called up with one year to serve, return as fully qualified journeymen and must be paid accordingly.

2. Those who had more than one year to serve shall have one year of the unexpired time allowed, the balance of the unexpired time to be served according to the terms of the indenture. If, however,

such employee is over 21 years of age upon his return, then he will complete the balance of his unexpired time as a probationer with his original firm at a wage of not less than three-fourths of the Federation minimum rate then prevailing.

It was further agreed that should the return of such apprentices bring the total of any firm in excess of the ratio of one apprentice to three journeymen, no new apprentice must be engaged till that ratio has been re-established.

Further correspondence has taken place with the Newspaper Owners' Organisation with a view to securing their adherence to the Federation scale, and joint meetings have been arranged at which this matter may be fully discussed, and it is believed that good results may be expected in the near future.

The Stationery Office contract has been before the Council at practically every meeting. The question is still receiving close attention and everything possible is being done to safeguard the interests of the trade.

A question that may be expected to have a very important bearing upon the future of process was the decision to form an Industrial Council for this trade upon the lines of the Whitley Report.

The matter has received very careful consideration, and as it was decided both by the Employers' Federation and the Men's Society that it was desirable to go forward with such a Council, it was arranged that a complete scheme should be prepared and fully discussed by both sides. This has now been done, and the draft has been thoroughly revised, and will be submitted to both parties to the same for their final approval. When that is done it will be sent out to the trade with full particulars.

Further steps have been taken re the proposed war memorial for the process trade, and it has been decided to raise a fund of not less than £500 to endow a ward in a holiday home for the benefit of workers in this trade who have been laid aside and are again convalescent, but who need rest and recreation. Full particulars of the scheme are given on page 3, together with a view of the proposed extension in which our trade will have its ward situated.

The Council very heartily recommend this matter to the generous consideration of every house in the Federation, some of whom have already promised very substantial help, those represented on the Council having promised nearly £500 between them. It is therefore hoped that a sum of something like £1,000 will be secured.

At various times letters have been received asking that a new price list should be prepared at once, and that the 40 per cent. increase should be incorporated in the price and so avoid having to show that item on every invoice. It had not been considered practicable to comply with such requests while the war was still in progress, for no one could foresee what the future might hold in store for the trade. Now, however, that the war is over, or practically so, it is felt that such objection no longer holds good, and as there can be little prospect of any reduction of price for a long time, if at all, it has been decided after having taken a poll of the trade, in which 76 per cent. of the houses voted "Yes," that the revision shall be proceeded with and that a new up-to-date list be provided early in the new year as possible, and it will then, of course, be distributed throughout the trade.

Donated Service ; or Extra Charge for Rush Work.

AT the recent convention, in talking with engravers from different cities, I was greatly impressed with their service troubles. To my mind, to the engraver the real meaning of service is to be able to deliver to the customer a satisfactory plate at the time needed.

Some engravers seem to think that rush and hurry mean service ; and if they run around rings fast enough and meet themselves coming back a number of times, that they have rendered someone a service. Salesmen often use service as a sales argument, promising unusual service on every job, whether the job is wanted in a hurry or not, thereby defeating their own purposes. All jobs are not rush jobs. Ninety per cent. of jobs can be sold on a basis of allowing proper time to do them. Having been sentenced to manage a branch office, I can speak with authority ; for we have frankly asked the customer on each order for sufficient time to do the work and have not lost one single customer. So I say that salesmen should try to get all the time they can on each order so that when a real rush order comes in, like meeting a publication date, or turning out a volume of plates for a mail-order catalogue that is on the press, the shop will not be full of unnecessary rush orders and will be free to execute speedily the job that really demands unusual service. This unusual service should be held in reserve for emergency only, and not used as a bait to make an ordinary sale. We all know

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that rush jobs are rarely profitable. It is in the execution of rush orders that most of our errors in size and make-overs occur. The money is made on the steady, even momentum of a shop full of work and a volume coming through every day in a prompt and an orderly way. Our main trouble is that we are allowing our customers to run our business in dictating to us how and when we shall make deliveries, demanding unusual service, for which they pay nothing additional, and no other than the engraving business is weak and foolish enough to render service without pay.

You buy Shoes, Groceries, Meat, Dry Goods, etc., and your purchase is delivered at some time when their regular delivery wagon is in your neighbourhood. If you want the purchase delivered at once, you are forced to call a service messenger and pay extra for it. If you wish to travel by train or boat, you go only at regular times indicated on the time table. If you wish to go more quickly, you take a limited train on which they make an excess fare service charge, a Pullman seat service charge, then the Government adds, besides the war tax, an additional service charge for the privilege of using these luxuries in war times, hoping to discourage these demands for unusual service even though it is paid for. Should you wish to post a letter, you buy a postage stamp, which is the service charge for transportation and delivery in the usual way by regular carrier on his regular route. Should you want your letter delivered immediately on its arrival, you buy a ten-cent special-delivery stamp and attach it to the envelope in payment for the special service. In fact, everybody but the engraver gets full pay for special service. You know, and I know, that a customer can call any engraver in your city on the 'phone and

will have an engraving house salesman in his office just as quickly as an automobile or a street car can take him there, and will demand that the shop be turned upside down and inside out to make unusual delivery, and then makes life miserable by "hollering" for the job before it is promised. Then, after you have done all this for nothing, no additional compensation for this unusual service, you generally get "bawled out" for some slight error of some non-essential in the job; no recognition for the service rendered, and what is worse, no pay.

Yes, I know you did it because some other fool engraver would do it if you did not, and that is just the point. Engravers have put over the new scale and it was not nearly so hard as they thought it would be. Now as a war measure, why not put over an extra charge for unusual service? All engravers agreeing that copy must be in at a certain time, otherwise there will be an extra charge for the service. It can be done. Then after you have established it as a war measure, stick to it because it is fair and right.

BRANCH MANAGER.

—From the *Process Bulletin*.

RECIPE FOR SUCCESS.

To each pound of your invested capital, add several ounces of good bookkeeping, a generous quantity of service, a goodly portion of advertising, and a great big dash of enthusiasm. Then stir. Don't leave any of these ingredients out and be sure not to forget the enthusiasm. Enthusiasm is the high flavor that makes the business tasty. It is the music and laughter at the banquet. Without it, nothing in the world would seem worth while.—*The Popular Storekeeper*.

The Spirit of British Efficiency.

EVERY nation has the sort of Efficiency it is fit for. The higher the nation, the higher the efficiency—the baser the nation, the baser the efficiency.

Here, in Great Britain, Efficiency means the uplifting of Business to the height of public service.

It means the application of both Science and Conscience to the affairs of Production and Distribution.

It is the gospel of Success and Character. It deals with what we HAVE and what we ARE—both.

No man can be efficient in the complete British sense, unless he possesses both Property and Self-Respect.

In Germany no man is regarded as efficient unless he sacrifices his personality to the State. He can only become efficient by becoming a cog—an impersonal detail of a national organisation.

In Germany no man is on his own. There is not even a Suggestion Scheme whereby citizens can help the State to think

The essence of efficiency in Germany is obedience to an irresponsible authority.

Thus a whole nation becomes a mere play-toy for a demented Kaiser. Such is German Kultur and Efficiency.

In this country we do not believe in such tragic nonsense. Here we measure the efficiency of the State by the extent to which it allows freedom of development to individual citizens. British Efficiency says—Build up your business by improving all the elements in it. Improve the buildings. Improve the machinery. Improve the methods. Improve the workers.

We prefer, whether we are right or wrong, great individuals and an insignificant Government, instead of a great

Government and insignificant individuals.

Neither do we regard business as the mere brutal acquisition of other people's property. That, we think, is burglary, not business.

What is business for? Not to enable a group of people to make profits at the expense of the Public.

The purpose of business, so we think in our British minds, is TO RENDER A SKILLED SERVICE TO THE PUBLIC.

The grocer collects food for the Public. The draper collects clothes. The railroad provides transportation. The dentist conserves the teeth. And so on.

A drapery shop is a public institution as much as though it were a Post Office. So is a factory. So is a theatre. So is every firm that is engaged in legitimate business.

Efficiency sweeps away trickery and humbug and bluff and deception. All this is amateurism. It is child's play, not business.

Business has its technique as truly as Art or Music or the Drama.

A man is not a business man merely because he says he is. Business must be LEARNED. It is not one of the five senses, as some people seem to think.

British Efficiency says—all true business is MUTUAL. Give and Get must be as equal as possible. And what you get for nothing always costs you the most in the long run. As my friend Samuel Turner says: "An efficient firm makes its living out of a part of what it saves the public."

That is one of the central principles of British Efficiency—one that is unintelligible in Germany. No Hohenzollern could ever understand it.

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Just as far as you possibly can, RUN YOUR BUSINESS FROM THE CUSTOMER'S POINT OF VIEW.

Realise that the Customer is the boss. He is, whether you know it or not.

Please the Customer. Give him better personal service. Fill him with kindly feelings and pleasant memories.

Do this and he will make you rich. He will become your permanent patron. He will advertise you and act as your unsalaried partner.

British Efficiency puts business on a higher plane. It ennobles and harmonises the conflicting elements of trade and commerce.

It takes the Oriental deceitfulness out of business. It takes out the war and the silly suicidal thievery. It lifts business up to a level with Engineering.

It looks upon business as the creative energy of man—as the most beneficial thing in the world.

It regards business as being vastly superior to any sort of scholasticism and aristocracy.

It knows that business is the greatest of all moral forces—that it has developed reliability, sobriety, punctuality, honesty, courtesy, self-control.

It declares that business is evolving into a hundred professions—that it is invincibly climbing up to a great social technique that will reconstruct the very fabric of civilisation.

British Efficiency is determined that the dream of HUMANISED BUSINESS shall come true.

It is the fruition of what Carlyle saw dimly, in fitful flashes. It is the answer to Ruskin's criticisms of commercialism.

It tells us that manufacturing can have its SOCIAL miracles as well as its mechanical miracles.

It knows that we can take a factory and double the HAPPINESS as well as the output—that we can improve the quality of the WORKERS as well as the quality of the goods—that we can increase the FRIENDLINESS as well as the profits and wages—that we can use shops and mills and factories and railroads as means to accomplish the one Great Purpose for which this rolling earth was made—THE RIPENING OF THE HUMAN RACE.—*The Efficiency Magazine.*

Material Generalities

By *Gustav R. Mayer, Buffalo, N Y.*

PRESENT conditions are bad, but there is much good in them also. We have certainly been thrown upon our own resources with a hard jolt; making nearly every plant a research laboratory, the results of which have been a decided improvement on our former methods of plate-making and the adoption of chemicals and formulas that formerly did not receive a passing glance, due to our being pretty well satisfied with what we had.

In nearly every plant there is one man gifted by nature to try new things and devise new ways of doing the old things better. Combined with intelligent application it will result in material benefits to yourself and your business. Give this man every encouragement possible, and above all, do not ridicule his efforts, as this usually has the effect of making him lose interest or seek more satisfactory surroundings.

My own work is making colour negatives for the trade. As I foot the bills, I am naturally interested in getting the maximum energy out of what I am paying

for. Substitute chemicals and formulas have always been of interest to me, to find ways and means of doing the same thing but in a different way. To avoid waste of solutions, trays and dipping baths should be used wherever possible. The one danger in this is that the solutions are overworked, and then the quality of the product suffers.

The following are a few substitutions that have proved successful in daily use :

Sodium carbonate in place of the more expensive potassium carbonate in the collodion emulsion developer.

Sodium bromide in place of potassium bromide in the copper intensifier and developer.

The majority of my negatives are intensified with lead. One intensification with lead is equal to two with copper and silver, and the negatives are just as easily handled in stripping and printing without any changes by the printer.

When using lead as an intensifier, cutting or reducing is done before intensifying and as a substitute for the potassium ferricyanide the following formula published by W. J. Smith in the "British Journal of Photography" answers my purpose :

A. 25 ozs. Water.

1 oz. Copper Sulphate.

1 oz. Sodium Chloride.

Dissolve the above and add sufficient ammonia to redissolve the precipitate formed. The solution will be a rich ultramarine colour.

B. 25 ozs. Water.

5 ozs. Hypo.

Equal parts for use.

Those interested in an Amidol developer that will keep, that is especially economical for prints and positives and does not

injure the hands, will appreciate this one, which is my favourite published by Dr. Namias

1000 c.c. Water.

50 grams Boric Acid, crystal.

20 grams Sodium Sulphite, anhydrous.

5 grams Amidol.

Bromide, if required for the plates or paper in use.

A wet plate developer that contains no acetic acid and is equal to any other for our purpose was published by F. B. Gage in 1859.

To a filtered saturated solution of gallic acid add with constant stirring a 30-grain-per-ounce iron sulphate solution until the mixture forms a thin ink. Now add ordinary commercial nitric acid until the solution becomes a dull green colour, and it is ready for use.

As the solubility of gallic acid is only one part in a hundred parts water, not much of this acid is required. One quart of this gallic acid solution requires about thirty ounces of the iron sulphate solution to form an ink, and about one-quarter ounce of the nitric acid clears the solution to the dull green colour.

Avoid delays through a blown-out fuse and possible expensive repairs by tightening up all electrical connections on switch boards, fuse blocks, arc lamps, motors, motor brushes, handles on switches, etc., at least once a month. Through expansion and contraction these points of contact loosen up, the resistance is increased, and electricity is being paid for that is going to waste.

In conclusion, the cleaner your plants are and the better ventilated, to carry away all the fumes, the less chemical troubles will exist and the production of saleable work will be at its maximum.

Cleaning Bottles.

EVERY photographer soon gets a stock of empty bottles, but it is not every photographer who knows how to clean them so that they may be used afresh without any risk of contaminating their contents. There is no one invariable method of cleaning bottles; the plan adopted must depend on what has been in them. The easiest to clean, of course, are those which have contained preparations which are freely soluble in water, such as pyro, sulphite, sulpho cyanide, etc. Thorough rinsing with clean water and draining thoroughly between-whiles will soon get them perfectly clean. Solutions of various kinds used in photography frequently leave a firm deposit on the bottom of the bottle that has contained them. Strong hydrochloric acid will usually remove this, if left in the bottle long enough and shaken up from time to time. There is no need to waste the acid, as it may be put aside for this purpose until more cleaning has to be done. Only do not use it for cleaning platinum prints after it has seen service as a bottle cleanser. If strong hydrochloric acid will not remove the deposit, nitric acid may be tried, or if the stain is due to potassium permanganate, oxalic acid may be used. If it resists all these, better throw the bottles away. Grease and oil should be removed first with a little benzol, and the bottle afterward should be cleansed with a hot solution of washing soda and then well washed in clean water. Caustic alkalies should not be employed for cleaning bottles to be used for photography, as they attack the glass and in time destroy its surface; moreover they are extremely difficult to

remove. Bottles should never be dried out, but after thorough rinsing should be left upside down to drain and dry, the mouth itself being left open. A clean stopper is as important as a clean bottle.

In chemical laboratories great use is made of chromic acid, produced by adding a couple of handfuls of finely powdered crude potassium bichromate to a quart of commercial sulphuric acid. This may be used over and over again if not diluted and will destroy almost any organic dirt. It should be used only when the bottles are dry, as if it is put into a wet bottle, so much heat may be produced as to break the bottle. It should be kept in a glass-stoppered bottle and kept away from fingers and clothes.

American Photography.

"I Didn't Know."

"I DIDN'T know it in time!" How many times did you say this last year?

"I didn't know three of the machines had broken down?"

"I didn't know there was no material on hand."

"I didn't know the tools were not ready."

Well, as you are not a mind-reader or a fortune-teller, why not have a system of weekly GRAPHIC CHARTS telling you what you need to know?

There is no good reason why you should continually walk backwards towards the future and make your business life a series of jolts and bumps.

Knowledge is power. Knowledge is control. You cannot afford not to know the daily needs of your own business.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

The Third Annual Meeting.

THE Third Annual Meeting of the Federation is proposed to be held at the Connaught Rooms, Great Queen Street, off Kingsway, on Wednesday, March 19th, and it is hoped that every member of the Federation will make a special effort to be present.

At this meeting there will be several important questions to be debated, some of them of the greatest interest to the trade, and as this is the only meeting of the whole trade held during the year it is of the greatest importance that all who have the welfare of the craft at heart should be in attendance and take part in the considerations of these matters, and help come to such conclusions as shall be for the benefit of all concerned.

The meeting will probably take a similar course to those of previous years, the purely formal business, such as the election of officers, members of the Council, the reading of reports, etc., will be taken during the morning sitting, then lunch will be taken, and it has been decided that two tickets (lunch tickets) shall be sent to every house in the hope that two partners or directors will attend and take part in the proceedings.

**Be sure and make a note of the date --
WEDNESDAY, MARCH 19th.**

The Prices of Process Blocks in this and other Countries.

WE understand that frequent enquiries are being made in various quarters as to the probability of an early fall in the prices now being charged for process blocks, and we are told that the enquiries are so framed that it is very evidently suggested that it is expected the prices will fall practically immediately.

What has given rise to such an expectation, or whether it is real or merely simulated, we are unable to say, but a little thought must convince the most sceptical that there is little chance of any reduction in the near future.

In process engraving the chief factor is not material as is the case in a great majority of trades, but wages, and material takes a lower place, heavy though the present prices are. Wages and heavy rents, etc., are the chief factors in determining prices, for most process houses find it incumbent to be in the midst of the great centres of trade where rents and other expenses rule very high. As a consequence these items become the dominating factors in the consideration of prices to be charged.

It may be as well to point out here that by a careful calculation we have come to

THE PROCESS MONTHLY.

the conclusion that if all the materials of all kinds used in the preparation of process blocks were at once reduced by 50 per cent. the only differences it would make in the cost of production would be, say, about $7\frac{1}{2}$ per cent. It will therefore be seen that the greatest reduction that can be looked for for a long period to come would be somewhere between 5 per cent. and 6 per cent., certainly not a great reduction, and that contingent upon a fall of 50 per cent. in the cost of materials -- a very great supposition indeed.

Of course, the question will at once be asked: But will not wages come down in the near future? That is a problem no one can yet venture to solve, but from all the indications to hand there does not seem much probability of such reduction taking place. Moreover the Trades Unions of the country clearly state that they have no intention of allowing wages to be reduced. If this should turn out to be a true prediction, then where are we to look for the reduction asked for?

We understand that a deputation recently waited upon the Federation Council to urge upon them the advisability of an early reduction in price, but even this deputation held out no hope of any fall in wages in the near future. So when it is the opinion of business men and trade unionists alike that wages have come to stay at about their present level it seems useless to expect reduction to any extent during 1919.

Of course, it may be that experience will show that here and there some small adjustments may be made in the price list, and we understand the Council is wide-awake to the advisability of making adjustments at any time when experience has shown that they are advisable. This, of course, is an entirely different

proposition to an all-round reduction in price.

But after all upon what is the demand for a reduction founded? So far as we understand it the demand is based upon the supposed excessively high price charged and the impossibility of using illustrations while at this price to any extent in publications that would otherwise be freely illustrated. This, we believe, was one of the main arguments used by the deputation previously referred to.

Do the facts available bear out this contention? We think not. Of course we can readily understand that users of illustrations are wishful to use as many as possible and to purchase them as cheaply as possible. That, of course, is the way profits are made, and is quite a legitimate aspiration. But that desire is no proof of the accuracy of the argument referred to, nor does the fact that some publications have fewer illustrations go far to prove the case, for the reduction in illustrating has been, to a great extent, brought about by the enormously increased price of paper--an increase in many cases of about 600 or 700 per cent.--which has had to be made up somehow. Process blocks, however, have during the same period been increased little more than 100 per cent., which is less than the average of most articles of commerce. How, then, can they be held responsible?

In our opinion the idea is more suggestive than real for the purchasers of process blocks in pre-war times treated the process trade as a negligible quantity, and by various methods, often seconded by impecunious block-makers, had reduced the trade to the point of insolvency. So much so was this the case that almost every house had to cut prices to an extent in order to keep their business together.

This proceeding, however, prevented any of them building up an internal reserve by which they could withstand the strain of adverse times. Consequently, when the war broke upon us, scarcely a week went by but some one plant or other had to close down, being unable to stand up against the circumstances then prevailing—a condition of things it is devoutly hoped will never again obtain in the trade.

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A perusal of this list will at once show that the prices charged in this country compare very favourably with those charged in any other part of the world, and as illustrations are being used in large quantities in these countries, and especially in America and Canada where they are much dearer than in this country, we feel that the contention that English prices are too dear must be founded on a misconception, and is probably induced almost unconsciously by the subtle memories of prices of other days.

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French ...	8½d.	11/4	9d.	12/-	11d.	14/3	§3¾d.	—	6/-
Swedish ...	1/1	8/6	1/4½	11/4½	1/6½	13/2	10½d.	1/4½	6/6½
Canadian ...	*9d.	10/5	11d.	13/6	1/8	1/-/10	5d.	2/1	5/7½
American ...	*7½d.	9/4½	10d.	12/6	1/3	18/9	6¾d.	1/8½	From 12 6 to 6/9, according to size.
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Acetic Acid	...	...	...	...	5	lb.		3 0	620
Citric Acid	...	...	...	...	1 10	lb.		6 0	230
Chromic Acid	...	...	...	...	10	lb.		2 3	170
Copper Sulphate	...	...	...	...	3	lb.		10	233
Pot. Bromide	...	...	...	...	1 10	lb.		11 0	500
Pot. Cyanide	...	...	...	...	1 0	lb.		2 8	165
Pot. Ferrieyanide	...	...	...	...	1 1	lb.		12 0	1000
Hydroquinone	...	...	...	...	5 0	lb.		1 2 6	350
Sodium Sulphide	...	...	...	...	4	lb.		8	100
Hypo	...	...	...	...	8 0	cwt.		3 15 0	836
Iron Perchloride...	...	...	...	...	18 0	cwt.		1 15 0	95
Potash (Sticks)	...	...	...	...	1 11 6	cwt.		89 12 0	5500
Mercury Bichloride	...	...	...	...	3 3	lb.		7 9	138
Caustic Potash	...	...	...	...	8	lb.		8	---
Egg Albumen	...	...	...	...	3 3	lb.		7 0	117
Fish Glue	...	...	...	...	2 5 0	doz. qts		9 17 6	338
Dragon's Blood	...	...	...	...	4 2	lb.		7 6	80
Cotton Wool	...	...	...	...	1 0	lb.		3 3	225
Benzole	...	...	...	...	2 0	gall.		8 0	300
Methylated Spirit	...	...	...	...	2 10	gall.		8 10	212
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that would be avoided had those making the enquiries carefully studied these documents, and made themselves familiar with them beforehand.

The preparation of the new price list is being dealt with by an entirely new committee. It may, therefore, be found that it will contain some great improvements, at any rate the trade will have the benefit of the work of an entirely fresh volume of thought on the matter, and if some radical changes for the better are suggested no one will be more pleased than the members of the Council. While on this subject we may say that if any member of the Federation has any suggestions that he considers will improve the scheme in any way, such suggestion will be most heartily welcomed by the Council.

The weekly report of the progress of the War Memorial shows that the fund is growing very satisfactorily. Up to the date of going to press the amount promised is £733, but as only about one-half of the houses have subscribed it will be readily realised that if the other half come anywhere near to the figure of those who have already reported the £1,000 will be easily secured.

During the month a small but representative committee met a committee of the London Master Printers' Association for the purpose of an informal conversation upon the question of closer co-operation between printers and process houses. During the discussion various suggestions were made, some of which may bear fruit in the near future; moreover the foundations were laid of what may some day become a valuable understanding between the two trades, and may lead to arrangements being made that will be for the benefit of both parties. As the matter is still under consideration

we cannot say more at present, but trust the scheme may mature to the satisfaction of all concerned.

At one of the weekly meetings we had a deputation from the British Association of Trade and Technical Journals, who wished to discuss with the council certain matters pertaining to the charges re illustration.

The deputation placed before the Council their views upon the matter, and asked that they should receive careful consideration, with a view to action being taken at the earliest possible moment.

These views were put before the Council in such an admirable spirit, and were urged in such a businesslike manner, that it was realised the deputation felt there was real necessity for their consideration, and were voicing not merely themselves, but were putting before the Council what they believed to be matters of considerable moment, not only to their own particular businesses, but to the process trade as well.

The president, in his most genial manner, congratulated the deputation upon the very frank and friendly manner in which they had approached the Council, and assured them that their attitude was very greatly appreciated, and that the arguments they had adduced had made a deep impression upon the Council, and though it was not possible to give any immediate answer, yet at the earliest possible moment these matters should have careful consideration, as the Council were always most anxious at all times to do what was best for the users of illustrations, as well as for the trade itself.

An informal conversation ensued in which various explanations were given, and facts stated which clearly shewed that the matter would not be forgotten, but

would be kept before the Council to be acted upon at the earliest date possible.

Further applications for membership have been received during the month, one from a new house just starting, and two from old firms, thus further reducing the exceedingly small minority still outside the Federation, all of which are of a small size, and have very few employees, but as it is felt desirable that we should have a 100%, federation efforts will continue to be made to get these few houses to join in the good work being done for the trade.

Two cases have been reported where it was charged that the federation scale had not been upheld, and the Council was gratified that in each of these cases the full facts with names, etc., were supplied, so that they could thoroughly investigate the charges, when it was found that both were substantiated, and the Council therefore took suitable action in each case.

It is not often that charges of under-selling are made, in fact it is surprising that there are so few, but most of the cases are deficient in the facts, or are asked to be treated as confidential; it will be readily seen that it is impossible to conduct any investigation under such conditions, should any members have such a charge to make it is essential that all the facts connected therewith should be fully stated, and no condition of confidence attached, otherwise enquiry is impossible.

At one meeting the question was raised whether a trading house who issued a house magazine and ordered illustrations for their advertisers to be used as advertisements in the magazines, were entitled to the printers' and publishers' discount upon those illustrations. This was decided in the negative, as it was stated

that the magazine was issued in the interests of the particular house only, and was in no sense a general publication.

Another query, a peculiar one, was raised as to whether it was permissible for a federation house to give out some of their sectional work to be done by non-union workmen in their spare time, and in their own homes. The reply to this query was "No." For it was felt that if such a proceeding was allowed, it would be a distinct breach of the arrangements made with our employees, who are all required to belong to the Society.

The annual meeting of the federation is fixed for Wednesday, March 19th, and it is hoped that all the members from every part of the country will make a special effort to be present. There will be several matters of first-class importance to discuss, and a full meeting is very desirable.

Certain questions respecting colour work having been raised by prominent houses in the trade, it was deemed desirable that a special meeting of those houses interested in colours, should be held in order to discuss the questions, and formulate some recommendation. The decision of this meeting will be duly considered by the Council, and recommendation forwarded to the annual meeting.

MANY a man in business can wait patiently while a factory is going up brick by brick—knowing that the bricks must be bought and laid first. But he cannot wait patiently while his reputation is being built up brick by brick through advertising. He wants to get returns on the first load of brick thrown on the vacant lot.—"*San Francisco Call.*"

The War Memorial for the Process Trade.

WE make no apology for returning to the consideration of so important a question as that of providing in some adequate manner a lasting memorial to the memory of those of our comrades who have succumbed to the terrors of the past four years, and the commemoration of the part the process workers of the country have taken in the great war.

In our last issue we reported that up to the time of going to press no less a sum than £547 had been promised by members of the Council, and since then an official appeal has been sent out to every member of the federation, and we take this opportunity of pressing upon each and all the desirability of giving the matter prompt and sympathetic consideration; and we would urge the desirability of them communicating the results of their deliberation to the Secretary of the Federation as early as possible.

With such a magnificent lead-off as that previously named, there should not be any doubt as to the final result being in the neighbourhood of £1,000, for we are fully persuaded that everyone will be deeply interested in the effort, and will be anxious to do the utmost possible to further the success of so laudable an enterprise.

We are fully aware that appeals of all kinds have been pouring in upon our members for a long time, and we are also aware that many houses have responded to these appeals in a very liberal manner, so that to some extent the appeal of our own trade has been forestalled, but we are convinced that the loyalty of the members to the federation will induce them to make a further effort on behalf of their own trade memorial, especially

as by so doing they will not only be raising a memorial to their comrades, who have passed away, but will at the same time be expressing their appreciation of the great benefits the federation has brought to them in their daily business.

Up to the time of going to press the total amount subscribed and promised is £733, including the amount already subscribed by members of the Council, and we hope that those who have not yet replied will do so as promptly as possible.

Let it be fully understood that it is not expected that every house can send a large donation, it is only the big houses that can afford such sums, but every house can send something, if it be but a guinea, and as the full expression of the senders' ability it will be just as welcome as the largest donation that will be received, for after all it is not the amount of the donation, but the good-will that accompanies it that makes it of real value.

In our next issue we hope to give a complete list of the promises that have come to hand, and we should very much like to see every house in the trade represented on that list.

May we make a suggestion—it may or may not be a practicable one—but if it is possible for the Council acting in concert with the committee of Limpsfield house to arrange for a garden party of process-engravers in the grounds of the institute, sometime during the coming summer, every subscriber would have the opportunity of seeing the establishment, as it now is, and the beauty of the surrounding scenery, and so come into personal contact with the scheme that may lead to further interest in the extension, when it is erected.

("The Process Photogram.") February, 1919

How "The American Printer" pictures the situation.



The International Proof Reader.

Cartoon by J. T. Nolf, ex-printer.

Are you watching the Question of Waste in your Establishment?

PRESIDENT MATTHEW WOOL, the head of the Process Workers' Society in America, has recently issued his annual address to the members, and in that address he makes several very remarkable statements that call for very careful consideration by both employers and employees in America. Moreover, they are of such importance that we believe they may be of use to process houses and workers in this country. We therefore use this report as the basis of this article.

"One of the great surprises of business surveys," says Mr. Wool, "is the fact that leaks, losses and wastes in business are said to amount to about one-fourth of the business done. It is estimated that the total business done during the year in the photo-engraving craft in America amounts to £5,800,000. If the above calculation of losses, leaks and wastes applies to the photo-engraving craft, then there is an annual loss approximately amounting to £1,160,000, much of which it is said may be prevented, to the great benefit of the employer and employee alike, if only the proper systems are adopted.

"In addition to the foregoing we are continually impressed by the argument of our employers that in order to maintain our craft upon a proper basis and give the employers the opportunity to more equitably base the cost of service on the cost of production, cost finding methods are a necessary pre-requisite."

The former of these two statements is certainly a very startling one, and we do not know what kind of investigation has been held that gives such unexpected results. We, however, assume that there

must be some serious ground upon which the statement is founded, otherwise a gentleman in the position of Mr. Matthew Wool would never venture to tell his fellow-workers that such a condition exists, a condition that must of necessity react to the prejudice of the employees, and as a consequence to the prejudice of the trade.

So far as we are aware there has never been any organised attempt to find out what is the waste in the process-engraving trade in this country, neither have we any idea of the total value of the annual output of the trade, but if these American figures are any sure guide it would seem to be high time that some effort was made by the Federation of Master Process Engravers in order to ascertain, if at all possible, what are the conditions obtaining in this country.

Supposing it is true that the waste is equal to one-fourth of the value of the net output, it will be an easy matter for every process engraving house to calculate what is the waste in its particular establishment, and if but one-half of that waste can be prevented what an additional amount would be shown on the profit side of the balance sheet, an amount which, if divided equally between the house and the employees, would be well worth the effort made. Moreover, how stimulating it would be to each employee if upon going for the annual holiday an amount representing his share were handed him, which would ensure the thorough enjoyment of the holiday without encroaching too much upon the weekly pay envelope.

No doubt many establishments do take precautions against undue waste, but whatever system the employer introduces can only be made successful by the employee, and what is more likely to spur the employees to make the effort than the knowledge that they with the house will share equally in any saving that may be effected?

The second statement, it will be seen, refers to cost findings, and here we have an entirely different problem, yet one just as important as the elimination of waste, for unless we know the cost of our products fairly accurately it is simply impossible to fix selling prices by anything but guess work, backed by the experience gained in the workshop.

No doubt the daily experience of those engaged in the actual production is a very valuable guide, and may in many cases be relied upon as fairly accurate. But after all, guess work is not good enough, for should it be that by any turn of the wheel of fortune, we are called upon to prove up to the hilt the necessity for the prices we charge for the different kind of work produced we have no actual figures to rely upon. Our only defence is that it is the consensus of the opinion of the trade that the prices are sound and justifiable, but of actual proof we have none.

The same problem continues to face the American process-engravers. They have tried several schemes by which they hoped to overcome the difficulty, but so far without complete success.

Moreover, it may be said here that the American workers have co-operated with the employers in the endeavour. In fact, their union directed all its members to do their best to make the effort a success, yet it has all resulted in partial failure. So Mr. Wool comes forward with a sugges-

tion that to us seems sound and practical. It may be costly, but as each side will bear its share of the proposed cost, it may be well worth the experiment, and if the right experts are engaged there can be no reason why a satisfactory result should not be achieved. Here is the suggestion: "In order that we may deal with this subject intelligently and effectively it is my opinion that our Union should authorise the employment of an expert in this class of work; that our employers should do likewise, and that with the co-operation of these experts and officers of our respective organisations a cost-finding system should be devised and a system of administering agreed to that will meet the requirements of our employers and at the same time protect the interests of our members at all times and under all conditions. I am convinced that only by this method will this vexatious problem be satisfactorily solved."

Here then is a suggestion, we think a valuable one, which if adopted would lead to great improvements on our present want of system and would help us to establish a sound and firm basis upon which to build our price schedule. No doubt such a scheme would give some very startling results but even so it is far better to have actual facts as the basis of a price schedule than any number of pious opinions, be they ever so well thought out and considered. We therefore suggest that the Federation of Master Process Engravers give this suggestion their most careful consideration with a view to getting all the facts before them prior to the issue of the next schedule of minimum prices.

THE man who tries to do his own advertising is like one who tries to cut out his own appendix.—*Mr. C. F. Higham.*

Making One Print from Two Negatives.

By Harold Cotter.

IT is no unusual thing for even the experienced and well-equipped photographer to encounter a problem that is one too many for him. He finds it impossible to take a particular photograph as he wished, or even to take it at all. Naturally the photographer with less knowledge and skill, who is further handicapped by limitations of apparatus, is bowled over still oftener. But in both cases the photographer could often find a way out of his difficulty did he but know of its existence. One special example of a difficulty and its solution may be briefly described to illustrate the point.

A photograph is to be taken of a high building. The photographer finds that from the standpoint he has chosen he cannot get the whole of the subject on the plate. Two courses may be open to him. He can get farther away from his subject or he can use a lens of shorter focus from his original position. But it is just as likely that he can adopt neither course; he cannot get farther away, and he has no lens of shorter focus than the one which will not give him the top and bottom of the building on the plate at the same time. Apparently he is at a dead end.

It seems rather an obvious fact that what will not go on to one plate may be quite easily accommodated on two; but how many would think of this as providing a satisfactory solution of the difficulty?

The first step, then, is to expose a plate which properly includes the bottom of the building and the necessary foreground, and from which the upper part of the build-

ing is missing. The second step is to raise the front of the camera, so that the foreground and lower part of the building are cut off, while the top and sky appear, and expose a second plate on that. It is well, first of all, to ascertain the smallest stop required when the rising front is used, and to employ this for both exposures, and of course the exposures must be exactly the same. Later on the two plates should be developed together, or if treated separately, they should receive the same time in developers of identical strength and temperature.

The result will be two negatives, one of which shows, let us say, the lower two-thirds of the building, and the other the upper two-thirds. It is clear that one third of the building will appear on both plates. At any rate, there must be a certain extent of the subject common to both plates, or the plan will not work.

Before considering further procedure, two variations of the problem may be mentioned. The first is an architectural subject which is not too high for the plate, but too long horizontally. Clearly the rising front will not help in this case, and even when a cross front is available it may not have sufficient range in each direction. But it is highly probable that in such cases a pair of exposures can be made from two different standpoints, sufficiently separated to obtain one end on one plate, and the other on the other plate, with the middle part of the subject common to both. The camera must be moved along an imaginary line parallel with the subject, and the camera must in each case be pointed at right angles to such a line. Also it

must be at the same height from the ground, which it will be if the triangle formed by the points of the tripod has the same dimensions in each case.

The second variation is where the subject is again too long for the plate, but is of such a character that there will be no evidence of unnatural perspective if the camera is pointed slightly to the right for one exposure, and to the left for the other. This would not answer for such a subject as the long wall of an exhibition gallery, but would be all right for a panoramic landscape. This is the only one of the three variations of the problem in which a hand camera might be used without a stand.

The next consideration is the production of the complete subject from the two negatives. From each a print is made on a smooth paper, either by contact or enlargement, taking care that both are exactly alike in depth and colour. These are pinned to a board, one overlapping the other, so that its details are exactly superposed over the same details in the print beneath. With a very sharp pen-knife both prints are cut clean through, not in a straight line, but following as closely as possible an irregular course that includes strongly marked lines. Thus the junctions of brick or stone work, the edges of doors, windows, picture frames, chimneys, and so on, provide the best track for the knife to cut. The two prints can then be mounted side by side, and the irregularly cut edges should make a perfect fit, and the line of junction be practically invisible. Any little defects can be remedied by retouching.

If only one print is required, the one so made and finished should answer the purpose, as there should be nothing to indicate that it was not made from a

single negative. But if more copies are required, the best plan is to copy the combination print, and the second negative which is then obtained will allow a further opportunity of removing the last traces of imperfect joining.—*Photography*.

Focus of a Negative Lens.

WHILE most photographers know how to ascertain the focus of a positive lens or magnifying glass with sufficient accuracy for their purposes, it may not be so generally known that the focus of a negative lens, such as is used in telephotography, can be ascertained almost as easily. If we hold such a lens in the path of a beam of sunlight, instead of bringing the rays to a focus, it causes them to diverge, as can be seen by holding a piece of white card where it will receive them. A circular disc of light will appear on the card, and when the latter is held at such a distance from the negative lens that the diameter of the disc is twice the diameter of the lens itself, the distance from the card to the lens is the focus of the lens. If the negative can be fitted in the camera, all that is necessary is to ascertain the diameter of the clear opening of the lens and to draw a circle on the ground-glass of twice that diameter. The Camera is then turned towards the sun, and racked in or out until the circle of light and that drawn on the glass coincide. The distance of the ground-glass from the lens is then measured. The same method can be adopted without a camera by fitting the negative lens over a hole in a sheet of card, and describing on another card a circle of twice the diameter of the hole.

Film Negatives on a Flat.

TO assemble film negatives on a "flat," as the plate glass support is called in process work, J. I. Crabtree, of the Eastman Kodak Research Laboratory, suggests that the celluloid side of the film can be attached to plate glass support by what is sold as "Major's Cement," which is made by dissolving gelatin in glacial acetic acid. By warming the acid slightly it will take up an equal weight of gelatin. If the solution is too thick it should be thinned with acetic acid. A little of this cement is attached to the corners of the film, and when it is tacky the film is pressed into position on the glass.

Science and Salesmanship.

AN English scientist relates that when he visited a certain American University he found the laboratories crowded with students engaged in elementary research.

"What becomes of all these students?" he asked.

The astonishing reply was: "Most of them become salesmen. They will be selling pork, machinery, goodness knows what, and our view is that they are none the worse prepared by having taken a B.Sc. first."

Such an incident arouses obvious comment on British methods of education for salesmen, but the point we want to make goes beyond this. In certain types of business in this country the management is almost inevitably drawn from the

salesman class. The training and wide human outlook gained by a salesman are admitted. British methods of distribution, despite many criticisms, are probably the best in the world for this reason. But British control of manufacturing processes, rapid adaptation of new ideas and improvements, are behind and have long been behind, and for the same reason again.

Possibly what we should gain by altering our method and enlisting our management from scientific men we should lose in other ways; but we want the combination of the "business man," represented at his best perhaps by the alert salesman, and the "scientific man." There is no reason why both should not be combined in the same man. If we must take our choice, and cannot have both, then for the present emphatically we want the scientific man. In a sense we have "oversold" in the past. Our selling devices have outpaced our scientific control. The sales side of every business has received all the plums, and there has been overdevelopment in consequence. Yet sales are not necessarily the criterion of a successful business; they often bear no relation whatever to dividends—even if dividends were a criterion, which they are not.

And, lastly, we have been steadily losing in recent years the honesty and straightforwardness which have characterised British business in the past. Chicane has made its disturbing presence felt. Is not this due to the over-development of the sales side? Would not an infusion of the scientific method, which demands truth as a fundamental, be found to be a stern corrective to this dangerous tendency in British commerce and industry? *The Organiser.*

Put the Job First. A Lot of Business.

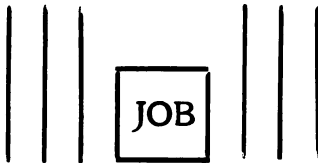
RECENTLY, while giving some business advice to a young man, I finished by saying: "It all comes to this one thing—if you put YOURSELF first, you'll fail; but if you put your JOB first, you'll succeed."

Put your job first!

No kind of success can ever come to the man who inflates himself and shrinks his job.

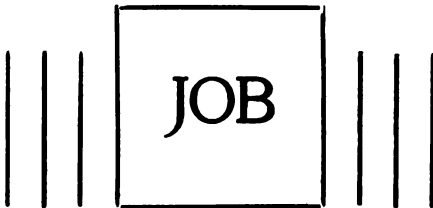
This is the very essence of Efficiency—to study and appreciate the job until you can do it professionally.

The poor job! In some firms it is neglected by everybody. The Managers are all swanking about, scheming to put themselves up by pulling someone else down, while the poor job gets smaller and smaller. Such a firm is like this—



Here is a poor little neglected job, in the middle of six big swanking Managers. Such a firm is sure to fail.

A right firm is like this—



Here is a large well-managed job, in the middle of six sensible efficient Managers. This firm is succeeding. It is making enough profit to pay everybody well. Why? Because it PUTS THE JOB FIRST.—H. N. CASSON.

A WRITER in "Printing Art" tells a story of a Southern ducky, named Jones, who appeared at his accustomed corner after an absence of several weeks, and was greeted by one of his cronies with: "Howdy, Mistah Jones! Habn't seen yo' fo' a long time. What you-all bin doin'?"

Jones drew himself up proudly as he made his reply:

"Ise suah bin doin' a heap ob business, Mose."

"How you bin doin' so much business?"

"Yo' know dat gray mare I used to hab?"

"Yessir."

"I traded dat mare fo' some sheep."

"Whe' am de sheep?"

"I dun trade de sheep fo' some cattle."

"An' you got de cattle?"

"Nope, traded dem fo' some hawgs."

"An' what am de hawgs wuth?"

"'Bout sixty dollars."

"What was de gray mare wuth?"

"Guess 'bout sixty dollars."

"Mistah Jones, whe' you bin makin' eny money?"

"Go long, you fool niggah! I didn't say I make money; but jes' look at de business I been doin'!"

The story is pertinent at this time. A great many of us are doing a lot of business, but because of cost of material, labour, priority orders, etc., we're like the darkey, "not saying we make money."

WE are never alone in the day of trouble and only to those who forget God is the hard road lonely as well as hard.—*The Ven. Archdeacon of St. Albans, at St. Paul's Cathedral.*

The Word in Season.

THERE'S a particularly contemptible kind of business man whom we've all met. He hates to give a kindly word of approbation, presumably lest he should be asked for a rise by the employee to whom he throws a casual word of encouragement.

It's not saying much for human nature if we go about the world afraid to commend a piece of work well done. Human nature is better than that. It isn't always grubbing after material reward. But it goes about its business with a keener brain and a gladder heart if its efforts are openly appreciated. Only a very small proportion of the world's workers take advantage of an employer's kindness expressed in the spoken word; the rest would work themselves off their feet to prove still more worthy of it.

Don't be niggardly with that little word in season. It will be treasured in some human heart and will come back to you in redoubled human effort.

It's the word in season that helps to maintain the hundred per cent. efficiency standard; that makes the wheels of administration run more smoothly; that surrounds you with contented workers and brings more grist to the mill.

There's a reason for the Big Man's popularity with his employees. He never forgets the word in season!

Pencils, ink, paper, string, are all like mustard. The maker gets his profit not out of what is used, but out of what is wasted.—*Mr. H. Holford Bottomley, in the "Weekly Dispatch."*

Get right down to it!

DON'T sit and look at the mass of papers on your desk, making a despairing mental note of the amount of work they represent.

Get right down to it!

Glory in the sensation of exhilaration that accompanies the solution of a knotty problem; the stimulating consciousness that a difficult task has been promptly and ably tackled. Watch the formidable-looking pile diminish! That blue pencil of yours ticking off the various items as they're duly despatched, will soon want sharpening again!

That's the style. **Get right down to it!**

There! That's the last of the bundle. Wonderful how soon the desk gets cleared with a little method and a lot of goodwill.

If you begin the morning well, the whole day goes right. No matter whether the job be that of the humblest employee or the managing director, the glow and stimulus of work well done is the rightful legacy of the worker who gets right down to it. And very soon, incredibly soon, the hands of the office clock point to the witching hour of one. A strictly "rationed" lunch will be ambrosia of the gods after a morning's steady toil.

It's all part of the glorious compensation of a busy existence—this feeling of elation at work well done. It is at such moments that the four walls of the office seem to expand, and your own spirit with them.

You breathe new air. You stand on greater heights. Nothing seems impossible if you **get right down to it!**

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No. 302.



MARCH,
1919.

THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

The Third ANNUAL MEETING of the Federation of Master Process Engravers.

IT is earnestly hoped that every House in the Federation will send one or two representatives to this very important Annual Meeting, which will be held at the Connaught Rooms, Great Queen Street, Kingsway, on Wednesday, March 19th.

We cannot too earnestly impress upon every member of the Federation the importance of being fully represented at this meeting, at which several subjects will come up for discussion and decision. They will have an important bearing upon the future of the Process Trade, and will be put to the vote, hence the desire of the Council is that every house in the trade should take its share in the decisions arrived at, so as to ensure the loyal co-operation of all in carrying them into effect.

The Meeting will commence at 11 o'clock, and the first work will be the reception of Reports, the Election of Officers and Council, and the Secretary and Treasurer's Statements.

At 1 o'clock there will be an adjournment for Lunch, and immediately following this function the Meeting will re-assemble and be addressed by Mr. A. J. BULL, Principal of the L.C.C. School of Photo-Engraving, and by a Member of the Reconstruction Council.

**Be sure and make a point of being present Wednesday,
March 19th, at 11 o'clock.**

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. F. H. VAUS,
Messrs. Vaus & Crampton, Ltd.,
Kirby Street, London, E.C. 1

Treasurer—

MR. EDWARD W. HUNTER,
The Sun Engraving Co., Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.
Telephone: 5596 Bank.
Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Annual Meeting.

THE Third Annual Meeting will be held at the Connaught Rooms, Great Queen Street, Kingsway, E.C. on Wednesday, March 19th, commencing at 11 o'clock.

Every member of the Federation is earnestly requested to make a special effort to be present.

Important business has to be transacted in which all should take part.

The Council at Work.

DURING the month three meetings of the full Council have been held, beside several Committees that have had various matters to consider and report to the Council.

Of course, the questions of greatest moment have been the preparation of the new price list, and the arrangements for the Annual Meeting. These, especially the former, have occupied a great deal of the time of the Council.

According to a vote of the Federation members it was the duty of the Council to consolidate the war increase with the prices in the July schedule, and so make a new and up-to-date price list that should show the actual price that must now be charged. This, of course, entailed a considerable amount of labour as it was necessary to carefully consider each item and so arrange the prices that there should not be any overcharge on the one

hand, nor, on the other hand, any under-charge. Beside this there was the question of colour prices to be completely reconsidered, and many minor matters to be adjusted so that it took several meetings to get through the whole of the work.

At length the list was made as complete and clear as the Council could make it, and it is being printed so that it may be put into the hands of every member of the Federation in order that it may be thoroughly and carefully examined prior to the meeting, where it will once more be fully discussed, and, if needful, amended, then printed, and supplies sent to each house for distribution among their customers.

The arrangements made for the Annual Meeting are on the lines of those of former years, viz., the President will take the chair at 11 o'clock, and after welcoming the delegates will call for the Secretary and Treasurer's Reports; then proceed to the nomination and election of officers, The retiring members of the Council, or others in their place, will then come up for consideration and election, and the various other matters relating to the routine of business will be attended to, after which the meeting will adjourn for lunch.

After lunch, and following the Presidential address, we are to be favoured with an address by Mr. A. J. Bull, Principal of the Bolt Court School of Process-Engraving, upon Technical Education in relation to Apprenticeship. Another matter that will call for the earnest attention of the meeting will be the establishment of a Whitley Council for the process trade, and it is hoped that a member of the Industrial Reconstruction Council will be present to give an address upon so important a subject, and to advise

respecting the same, for this meeting will have to decide whether such Council shall be established or otherwise.

Another matter of great interest to the trade will be the proposed War Memorial, a report as to its present position will be presented. The consideration of the new price list will in all probability occupy a fair amount of the time of the meeting unless the members find the Council have done the work so thoroughly that it needs no further revision.

These are the chief features of the coming Annual Meeting, and it is earnestly hoped that every member of the Federation will be present to take part in the discussion and help to arrive at correct decisions.

There will, of course, be several minor matters that might receive attention should there be sufficient time; for instance, what can be done to bring into the Federation the few firms still outside would give scope for an interesting debate. Another matter of great interest is the question of co-operative buying, and there are probably a great many more subjects that members might care to ventilate should opportunity occur.

During the month there have been questions before the Council that have needed firm yet careful handling, two cases in which schedule prices were stated to have been either broken or underquoted were reported, and it became necessary to make careful enquiries so as to learn the exact position. Both cases are still under consideration, and will be duly dealt with as all the facts have now been collected.

It is cause for congratulation that with a price schedule that necessarily presents so many difficulties, there should be so few cases where departure therefrom is reported, and fewer still in which the de-

THE PROCESS MONTHLY.

parture appears to have been made deliberately.

A question of great importance to a large number of the junior workmen in process houses has been arranged with the officials of the Men's Society, viz., the position of those youths who were learning the trade but were not indentured apprentices before they had to join the Army. The position the Council took was that these young men should upon return to the trade be treated the same as indentured apprentices, and after fully considering the matter the Men's Society have agreed to this, but request that immediately upon their return to their respective houses an arrangement should be made with the Father of the Chapel as to the length of time they are to serve before they are considered to be fully qualified journeymen.

Another question re apprentices has been arranged with the officials of the Men's Society, viz., that in future, whenever it is proposed to indenture new apprentices, fourteen days before such indentures are to be signed the Father of the Chapel shall be informed of the proposal, together with a statement of how many apprentices there are already in the house. This is of course necessary in order that the Society may be in a position to maintain the regulation number of one apprentice for every three journeymen employed as per the agreement.

Owing to the number of men being demobilised, it seems there is a greater supply of process men available than there are positions vacant. As a consequence the Society has a waiting list of men on their books, and will be pleased to get them placed as early as possible.

In order to regularise the matter as

much as possible, and to help find employment for this surplus labour, the Society is reinstating the rule which has been in abeyance during the war, viz., that no workman shall work more than thirty hours' overtime during any one month: to this the Council has agreed.

✓ *The Number of Colours.*

THIS is a much-discussed subject, and the salesman who has been selling three- and four-colour process letterpress work should be very careful how he advises his customer when a drawing or sketch is submitted to him. If his own artist has made the sketch, he will probably be posted as to the number of colours necessary to reproduce it, but if the customer has had a drawing made, or it happens to be a painting made by a man who had no idea that it would ever be reproduced, it is a very different matter. He may have painted the picture for the effect only, regardless of colours, technique, or any of the restrictions the carefully trained artist places upon himself. He does this in order to make things easier for the plate-worker and enable him to separate his colours by the simplest methods. It is far better to get the subject back to the shop and have a conference with the men who make the plates and let them study the picture and decide just what colours will make the best reproduction. A careful salesman will always do this. If it is impossible to take it away, bring the artist plate-maker and have him look at it.

Process Employees Fix Selling Prices.

WE have often heard it stated that some of the more advanced Trade Unionists were considering a plan whereby they would not only fix the price at which their members should sell their labour, but would also fix the prices at which the employers should sell their goods, but the scheme seemed so very extraordinary and impracticable that little attention has been paid to the hint.

But as so frequently is the case the improbable is that which does happen, so in this case what we thought impossible has actually come to pass in America.

The following extract from "Forbes' Magazine," sums up the position at the present moment :

Can you imagine an employer being deprived of all voice in fixing the prices at which he must sell his product and being compelled to submit to having his prices fixed solely by his workmen ?

That is the extraordinary, the unbelievable law just laid down by the Photo-Engravers' Union of New York. "Nonsense—a joke," you say. Read this extract from a circular dated October 16th, 1918, issued by the President of the New York Photo-Engravers' Union No. 1 to all the employers in the city :

"Enclosed herewith find 'Minimum Selling-Base for Photo-Engravings' as adopted by the members of this Union for their protection ; the disregard of which will result in our requesting the withdrawal of our members from your employ.

These bases should not be regarded as standard, but as the minimum at which the product of our members should be sold, and were arrived at, after a very

lengthy and exhaustive investigation. . . . This minimum is not supplemented by any further side notes. If not entirely clear, an officer of the Union should be consulted.

We will hold each concern responsible for the action of their representative, whether office employee or street salesman.

Our members are fully prepared and determined to protect themselves against any individual, concern or combination of concerns who might act in a way detrimental to their interests and will not be bound by any contract made in the past, or which may be made in the future without their consent, as per communication sent you last July.

This Minimum Base, as submitted, is subject to change at the will of the members of this organization, and will be regulated by universal Cost-Finding Systems soon to be installed.

The 'Minimum Selling-Base for Colour Process Engravings' is being prepared and will be distributed as soon as printed.

We again assure you that this action is taken solely for the protection of our members and for the best interest of the photo-engraving craft."

The Government has ruled that it is illegal for employers to band together and fix prices in collusion with one another. But, apparently, what is illegal for employers is entirely permissible for workers. Imagine a manufacturer being told that before he can contract for the sale of any goods he must consult an officer of the men's Union to find out whether the terms suit the workers and whether prices are to be advanced before the contract can be fulfilled ! Under this

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unique scheme the owner of a business becomes nothing more than the servant of his men. He is graciously permitted to act as salesman for the goods the men produce with his plant, his capital and his management, but he must step up to the workers to obtain from them their latest table of prices fixed by them for his goods ! Needless to say, the first prices fixed by the Union were distinctly higher than had previously ruled.

* * * * *

Eugene C. Miller, the President of the American Association of Master Process Engravers, when writing of the action of the Employees' Trade Union in taking into their hands not only the fixing of the rate of wages for which they will sell their labour, but also that of fixing the price at which their employers shall sell the product of their labour, as indicated on page 40, says : " You will read the startling information contained in the article describing conditions in New York City. In that instance the Union has made an investigation of the cost of production, and, insisting upon the right to determine the selling price of the finished product representing the personal services of its members, has put forth a new departure in legal and business practice. There is no denying the fact that the selling price of any article has a direct bearing and influence upon the wages paid to those who produce it. The determination of this price, however, has always been left to the buyer and seller, although in reality it is controlled fundamentally by the laws of supply and demand. It goes without saying that if the workers in the photo-engraving industry are to receive good wages, good shop conditions and short working hours, the selling price of engravings must be

high enough to yield the necessary funds. It must be high enough to not only grant these desirable conditions to the workers, but it must also produce a profit for those who invest their capital and lend their executive and managerial ability to the industry. An industry cannot be considered truly profitable unless both capital and labour receive their just dues in the way of compensation. The usual method pursued in deriving a just and fair compensation is through the channels of organisation. The working-men form unions and by their collective power secure the conditions they desire. As this operation progresses, it has a tendency at first to slightly reduce the employers' profits, because if the latter are unorganized, they are unable to increase, to any appreciable extent, the selling price of the articles they produce and distribute. Later on profits are entirely eliminated, and as a matter of self-protection the employers form their organization and they repeat in a milder manner, and at much greater cost of effort, the operations of the Union.

" If both employers and employees succeed in their separate organizational efforts, you can readily understand that the price of the articles manufactured and sold, is bound to advance, steadily but surely, until it reaches a point where it seems dangerous to all concerned to press the matter further. The employers, as a rule, realise this to a far greater extent than do the workmen ; the latter, urged forward by need and desire, especially in these days, find it difficult to curb either or both. Furthermore, employers do not enjoy the freedom of action and immunity from legal restrictions that has been conferred upon the workmen, and this invariably brings both parties to a point where

it seems impossible to go further, and where a new policy must be formulated. The action taken by the New York Photo-Engravers' Union fails to take into consideration any element other than the desire of the members to secure higher wages. If the plan is well conceived and if it will stand the test of time, it will go a long way toward solving our economic problem. If it is not sound, it will prove disastrous to all concerned.

"The Union, in establishing the value of its members' services, as has been done in this instance, ignores the law of supply and demand. It is true that the plan has a solid foundation; viz., it determines the value of the product based on its cost of production. Assuming that the cost of production has been accurately determined, and the selling price fixed accordingly, by the Union, the Union in this instance not only determines the compensation which its members are to receive, but it also determines the profits that are to be made by the employers. In short, the cost of production, selling price and profit are determined by the Union in one swoop. Instead of raising wages first, and leaving the necessary adjustments of selling prices to the discretion, wisdom and ability of the employers, the selling price will be raised first, or at least coincident with future increases in wages. The plan appears to be nothing more or less than an inverted pyramid. If it is sound and workable, it will be extended to every industry. If it works for one, it should work for all. If it works for all, then the present high cost of living is merely a beginning in that direction. We shall watch the developments of this plan with a great deal of interest. The outcome will affect every one of us.

"We find ourselves in the midst of a

season of discontent and unrest on the part of our employees. No sane man can find fault with workers who strive to improve their conditions. We have been doing business with the local branches of the International Photo-Engravers' Union for many years, and while there have been ructions here and there, our relationship in the main has been fair, equitable and pleasant. This has been especially true in the last three years, and the International Photo-Engravers' Union was rapidly gaining our confidence, admiration and respect. The writer has personally expressed himself on many occasions as being in favour of dealing with organized labor in our industry, and is pleased to believe that he has contributed in a small way to the amicable relationship that has prevailed up to recently.

"Developments within the last three months seem to indicate that there are certain elements in the ranks of the Union who have become imbued with the spirit of discontent which seems to prevail throughout the world and who are doing their best to bring the International Photo-Engravers' Union into disrespect and ill repute. They appear to be actuated by the principle that might makes right, and apparently cannot heed the lesson that has been so lavishly bestowed upon the First Disciple of the Theory of Might, our erstwhile friend and now thoroughly discredited and unlamented william hohenzollern.

"If the workers in the photo-engraving industry were compelled to deal with employers of the now absolute type; viz., men who believed in grinding their workmen down to the lowest notch, men who conceded no rights and granted no privileges, there might be some justification

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for the attitude displayed. But this cannot be said in truth about the employing photo-engravers. I do not believe that a more liberal-minded class of employers exists anywhere than those who struggle along at great odds in the photo-engraving industry. Photo-engravers have always received the highest wages in the printing industry, of which we are part. They have enjoyed better shop conditions than have the other printing trades; they have had the shorter work-day longer and obtained all concessions at a very low cost when compared with not only the printing trades, but all other trades. The greatest advancements made by the Union were always obtained through negotiations and by mutual consent. It is doubtful whether much advancement can be made by any other method.

"During the war period both sides undoubtedly have learned something new about the value of co-operation. It seems a pity that this lesson should have left no impression whatever in the minds of some of the workers. Just at a time when the world at large appreciates the value of organisation, co-operation and good-will, a certain class of workers turn their face in the opposite direction and begin a programme of antagonism bound to result in injury to all. That these men have no feeling of responsibility and that they appear to be indifferent to results, even to themselves, does not lessen the evil. I believe there are enough men of sound mind and good thought in the ranks of the workers, who, if they will assert themselves, can effectively stop this process of disintegration which is being forced upon them."

The New York Situation from the Men's Point of View.

ON November 1st, a Minimum Selling-Base for Photo-Engravers, which has been adopted by the New York Photo-Engravers' Union for the present protection and future benefit of its members, becomes operative. In other words, the members of "New York Photo-Engravers' Union No. 1" have definitely decided to remedy the present unsatisfactory, chaotic and deplorable condition existing in the photo-engraving business in this section, which the employers seem unable to cope with, and which is reacting to the detriment of those employed.

"Photo-engraving is an art and should be regarded as such, but is gradually deteriorating as is plainly evident by comparing

magazines or catalogues dated a few years back with those of recent issue. This is due to a combination of abuses which have crept into the industry brought about by either selfish or indifferent interests, too long and shortsightedly tolerated by us as craftsmen, who have our entire future well-being in the balance.

"That the inability of the industry as a whole to fairly meet the adverse conditions with which we are confronted (due to the war), was brought about by the unfair methods and unprofitable prices at which the services of our members were being disposed of, is also apparent.

"These facts led to the adoption of the Minimum Selling-Base by our members, which action was taken only after a

thorough investigation, which began last April and continued throughout the summer. The Committee on Conditions and Trade Abuses, which had the matter under consideration, held upward of thirty meetings before referring the matter for final action, which was done in the following report and recommendations :

Report of Committee on Conditions and Trade Abuses :

“The Committee on Conditions and Trade Abuses, which was authorized in May of this year, has held between twenty and thirty meetings, at which the condition under which our members are employed was considered, it being apparent that the inability of the industry as a whole to fairly meet the adverse conditions with which we are confronted, due to the war, was brought about by the unfair methods and the unprofitable prices at which the services of our members were being disposed of.

“This condition is best illustrated by the fact that many of our members have been unable to secure even one dollar increase during the past twenty months, despite the tremendous increase in the cost of living ; owing, undoubtedly, to the inability of the employers to pay them more out of the prices which they are receiving.

“The Committee, which was appointed by the Executive Board, was composed of the President, Vice-President, and the Business Agent of the Union, and eleven other members, all of whom have experience as owners, part owners or superintendents of engraving plants. E. J. Volz, the President of the Union, was selected as the Chairman of Committee, and Wm. Doerr, the Business Agent, as the Secretary.

“This Committee was divided into two

sub-committees ; one of which investigated the conditions of colour work, and the other, the black and white conditions ; the officers of the Union being on both committees, which also held joint meetings.

“A representative member of each concern in the city was requested to appear before these investigating committees, and practically all responded, and furnished valuable information, as requested.

“The findings of this Committee were from time to time reported to the Executive Board, and both committees, after due deliberation, are of the opinion that the organization, for the best interests of its members, should adopt a scale of selling-prices which should be the minimum at which the services of our members should be disposed of, by those who represent us as employers or agents.

“This action is recommended solely in the interest of our members, who have the right, as verified by the recent decision of Judge Mulqueen, to determine the price at which their services shall be disposed of.

“The Committee and the Executive Board are unanimously of the opinion that only by such action can the welfare of our members be assured for the future, and our hopes for adequate compensation for our highly skilled services be realized.

“We therefore recommend that for the best interests of our members, a selling-basis as presented, for use in the disposal of the product of our services, be adopted by this Local Union, this selling-base to be regarded as the minimum at which the services of our members shall be disposed of ; and that the officers and the Executive Board of the Union be authorized and empowered to act accordingly. This to become effective on October 1st,

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1918, or as soon thereafter as deemed advisable by the officers and the Executive Board.

Respectfully submitted,
COMMITTEE ON CONDITIONS AND
TRADE ABUSES.

"The above action and recommendation of the Committee and the Executive Board were unanimously concurred in at a meeting on September 1st. Owing to unforeseen circumstances, however, the Minimum Selling-Base did not become operative until November 1st.

"Undoubtedly the two greatest factors and most flagrant abuses responsible for the deplorable condition existing, which made necessary the above action, were, first, the acceptance of work at prices so ridiculous as to put concerns who would regard good work as an asset out of all competition; and, second, the promise of delivery or so-called "Service" without regard to physical ability of fulfilling, unless the quality of the output be sacrificed.

"The result of this condition has made it necessary to speed our members faster and faster (even by employers who deplored such practices) to make good the prices quoted and to meet the absurd promises of delivery; the outcome of which has been a general inferior quality of engraving.

"With the enforcement of the Minimum Selling-Base, our members will have the opportunity to break these practices and will be urged to do so for their future welfare. They will be advised to disregard all undue requests for speeding at the sacrifice of good work and to aim for quality engravings, of good printing value. We will not agitate unnecessary work or puttering, but will leave it to each individual worker to determine the amount

of work necessary to make a good reproduction of the copy in hand.

"Another reform, which we hope to accomplish, and upon which we will insist, is cleaner shops and better sanitary conditions under which to ply our trade. Unfortunately, some of our shops at the present time are in a filthy condition, while others will need entire re-modelling to make them acceptable for the future. Our health depends on ventilation and sanitation, to which every worker is entitled, and on which we shall insist.

"We are also looking forward to the eight-hour work day with four hours on Saturday, and the forty-hour week for night workers at the expiration of our present agreement, or upon the return of our members from Government service, and are planning accordingly.

"We will also seek higher pay for our members, which is due them as highly skilled artisans. Many of our members have not received any increase in salary during the past two years, and none of us have received increases in comparison to the ever-increasing cost of living. We have repeatedly been informed by our employers that higher pay under present conditions is impossible, and that they were unable to remedy the situation. This condition has not prevailed to the same extent in any other trade or industry.

"The Local Union is undoubtedly inaugurating a new era in the photo-engraving craft and perhaps in the entire economic business structure. Our endeavour is to further democratize the photo-engraving industry for those who are devoting their life to its production.

"Section 48 of the General Laws of the International Photo-Engravers' Union of N. A. reads as follows: "Whenever, in the judgment of the Executive Council,

any firm or combination of firms are selling or disposing of the services of our members at a price which may react in any manner to the detriment of our members and the photo-engraving craft, it shall be authorized and it shall be their duty to have such practices stopped, even to the extent of withdrawing our members from the employment of such concerns as persist in such detrimental practices." "Needless to say, we are looking for the fullest co-operation from each member and every Local under the jurisdiction of the International Photo-Engravers' Union.

E. J. VOLZ, President,
New York Photo-Engravers' Union, No. 1.

* * * * *

From other information to hand we are led to believe that the prices quoted by the Union are excessive. "Exorbitant" is the word used. If this is the case it must very seriously interfere with the volume of business done, and as a consequence less labour will be required. If so, then what is to become of those process-engravers returning from the war and expecting to return to their previous situations?

In this country where prices of process blocks are lower than in any other country of which we have any information, it is almost impossible to absorb all the labour thrown upon the market, so much so is this the case that we understand the Process Workers' Society already has a fairly numerous waiting list which is being continually added to, notwithstanding the fact that many employers are taking back more of their old employees than they can find employment for just now.

Such being the experience in the trade at the moment, it would appear that the action taken by the New York Photo Engravers' Union No. 1 will be of very doubtful benefit.

How a new Developer was Developed.

By Stephen Horgan.

THE wide-awake "Photo-Engravers' Bulletin" prints on page 29 of the June issue "A Substitute for Commercial Acetic Acid, etc." The formula furnished by the chairman of the Research Committee is as follows: Sparkling gelatin, 1 ounce. Put this in a stone jar and let it soak up as much cold water as it will absorb, then add slowly to the gelatin, while stirring with a glass rod, 3 ounces of sulphuric acid. When the solution is cooled, add about $6\frac{1}{2}$ ounces of aqua ammonia, or enough to neutralise it. Then pour this solution into a bottle and add 80 ounces of water and 6 ounces of glacial acetic acid, ninety-eight per cent. The above makes a stock solution. For use, take $1\frac{1}{2}$ ounces of stock solution to each 20 ounces of iron developer. This takes the place of the acetic acid which is ordinarily used in developer, the use of which is now greatly restricted by Government order.

This formula originated with the present writer and has been published at least twice in this department during the past twenty years. It will be found on page 31 of "Horgan's Half-Tone and Photo-mechanical Printing Processes," published by "The Inland Printer." The Research Committee is to be congratulated on discovering the source of much valuable information. If every employing engraver had a copy of this book he could get information at once.

—From *American Printer*.

Collodion to Restore.

By Stephen Horgan.

PHOTO-ENGRAVER," New York, writes: "I noticed in one of our dark rooms a large bottle of dark coloured collodion which our photographer said is the collection from several darkrooms for a month or more. He tells me that when collodion becomes old it works so slowly that it does not pay to use it, so they have stored it in this large bottle. I asked him if there was not some use to which it could be put, and he recommended that I write and find out."

ANSWER.- Photographers should not make up, in these times, with chemicals so expensive, more collodion than can be used before it gets too old to work satisfactorily. A book could be written on this subject, therefore only a sentence can be given here to cover what should occupy a chapter. Cadum salts in collodion will preserve it. Collodion is scarcely ever so old that it cannot be used for line work. The older the more intensity it gives, thus saving time and chemicals in intensification. If a strip of absolutely clean zinc is put in collodion when it begins to darken, the zinc will absorb the excess of iodine, as shown by its return to yellow in colour. With very old collodion a good plan is to let it filter into a large pan of clean water, when, if allowed to remain there for a day or so, the cotton will be found floating on the surface and it can be then skimmed off and dried. It is thereby made useful for line or striping collodion.- From *American Printer*.

In photographing snow scenes remember to get shadows. The natural contrasts are so limited that accents must be obtained by shadows thrown across the scene.

How to produce White Letters with Black Shadow on Grey Ground.

MAKE a negative of the type, photographed to the proper size.

A wet plate positive is then made by putting the sensitized wet plate behind the negative in the plate-holder with just enough cardboard separation to keep the two films from touching. After exposure in the camera to a sheet of white paper, or a flash exposure to electric light, the positive is developed and bleached with either bichloride of mercury or sulphate of copper and then washed well. The positive containing the white letters is then backed up with a piece of grey board, fastened to the copy-board and illuminated with only one electric light, which should be drawn back the proper distance and fixed above and to the left of the positive so the letters cast the shadow required on the grey background. This may require, if the glass on which the positive is made is too thin, an increase of separation between the positive and the grey background.

ANOTHER METHOD.

MAKE an ordinary screen negative from type, with very small exposure, so that the dot in the background remains small, and the white paper reproduces as grey. While this is drying we make an ordinary line negative from the copy and then a wet-plate positive from this which is stripped on top of the screen negative and slid about until just sufficiently out of register to give the relief effect shown. This is quite certain, and easier to do than describe."

✓ *Silicon Iron Waste Pipes.*

IRONFOUNDERS have long been using silicon for improving the quality of cast iron, the proportion of silicon reaching as high as twelve per cent. It has only recently been discovered that if the proportion of silicon is increased from twelve to nineteen per cent. an alloy of iron is produced that resists the corrosive action of nitric, muriatic and sulphuric acids. This is good news for engravers using the top floors of modern buildings, for the corrosion of the waste-pipes has frequently prevented owners of choice buildings from allowing engravers to occupy space in their buildings. There are many uses to which silicon iron can be put in a photo-engraving plant.—

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✓ *Printing Half-Tones on Leather.*

DEALING with the offset printing process in "The Printing Art," a writer points out that some most remarkable results are being obtained by several leather novelty houses by printing pictures in fine screen half-tone. The plates are made by the high-light process, and are printed on the rough leather as perfectly as if they were printed on fine-coated stock. They are printed on several colours of leather, and in large sizes, as many as 6 by 8 up, on a large skin; this is afterwards cut out in the form of a small skin by die cutting; it is then stained in the different brown tints along the edge and hand coloured with an air-brush. This produces a rich Spanish

painted leather effect that is truly remarkable. One firm is experimenting in printing in colours by the same process, but unless the leather is mounted first on a good heavy sheet of paper the register is not so good.

The leather people say that they can get certain kinds of leathers that are shrunk in the tanning process, which will obviate most of the registration difficulties. This opens a new field for the offset process, and, incidentally, may give a hint to some of our bookbinders, who, by adopting the method, could turn out finely-decorated covers at a comparatively small cost.

The many different uses to which the offset process is applicable will come to be known as time goes along and the process becomes better known to manufacturers, who are, so to speak, outside of the printing fraternity.

Bookbinders certainly should not be the last to benefit by any advantage that may be gained by the use of offset printing on leather. Of course it would be equally serviceable for printing on cloth or other covers.

TO IMPROVE RUSTY PRINTS.

There is a very easy method for improving rusty bromide prints. They are first bleached in the ordinary ferricyanide bromide bleaching bath as used for sulphur toning, and are washed in running water for ten minutes. They are then developed again in a developer of the same composition as is usually employed for developing bromide prints in the first instance, except that any bromide it might contain is best omitted. All the operations can be conducted in the ordinary light. No refixing is required.

Printers' Technical Education in Queensland.

THE state educational scheme in Queensland includes the establishment of printing classes. The terms of the Industrial Court Award for the printing industry, prescribing for printing trade apprentices of higher status than the second year attendance at technical classes during day and evening, led during 1917 to the establishment of technical classes to assist apprentices in the printing trades. In order that a commencement might be made, it was decided that for that year instruction attempted be limited to theoretical teaching.

Regular attendance was secured from the inception of the classes. While instruction had perforce to be purely theoretical, compulsory attendance was limited to attendance during day hours. A liberal interpretation was placed on the award requirements, and all junior trade learners from the second year onwards were permitted to leave work one hour and a half earlier than usual on one afternoon a week, in order to attend for instruction during one hour.

The enrolment of apprentices at printing classes during 1917 was as follows :— In composition, 20 ; in bookbinding, 13 ; in letter-press machining, 11 ; and in lithography, 11. A class for journeymen compositors was also established, which attracted 11 students.

During the year arrangements were made for the installation of machinery, and equipment for practical work. A beginning was made with the branches

composing and letter-press machining ; and a small initial equipment for practical work by students in these branches has been purchased and installed. Requirements for practical classes in lithography and bookbinding have been drawn up with a view to practical classes in these branches being established as soon as funds are available.

Restoring Faded Silver Prints.

MERCURIAL intensification is one of the methods put forward for bringing back to full vigor silver prints which have faded. It is probably the best, and of mercurial intensification the best modification is that which was introduced by Mr. Chapman Jones. To employ this the faded print should first be well washed to get rid of all soluble impurities that might be present in the paper, to which perhaps the fading is due. The picture is then bleached as far as it will go in a solution of mercuric chloride, the strength of which is not important, and is again washed. If dilute hydrochloric acid (say one per cent. strength) is employed for some of the intermediate washings at this stage it will be all the better. A freshly mixed ferrous oxalate developer is then applied to darken the picture, using for this purpose saturated solutions of potassium oxalate and ferrous sulphate, pouring one part of the latter into five of the former. After the developer has darkened the print as far as it will go it is washed in four changes of very dilute citric acid, say five grains to the ounce, then in water, and is dried.

We are often asked how faded prints which are valued can be restored. The

process just described is what we ourselves would adopt, but only as a last resource. If the print is irreplaceable it is better to do all that can be done to secure a good copy in the camera before exposing it to the risk which re-wetting always involves. Many prints that seem to be faded almost away, copy (on ordinary, not orthochromatic plates) much better than they look.

— *Photography*.

✓ *Acid Resisting Inks.*

JEAN de Noyelles, Montreal, wants the most powerful acid-resisting ink for rolling up zinc plates for extra deep etching.

ANSWER.—There are many acid-resisting substances that can be introduced into the ordinary etching-ink; for instance, asphalt, resin, beeswax, Burgundy pitch (the hard yellow resin from the Norway spruce). Canada pitch (the resin from the hemlock spruce). Any of these can be added to etching-ink to the extent of from twenty-five to fifty per cent. by melting together and afterward mixing well on a slab through the addition of the least amount of spirits of turpentine necessary. With the exception of beeswax, the resins and pitches will make the ink rather brittle, causing it to chip off when it becomes saturated with dragon's-blood and dried out by several heatings. The writer has found it necessary to add an oil, like palm-oil, oil of lavender or other oil, to keep the ink soft though the best softening medium for ink that he found and the one which also has the greatest acid-resisting properties is Canadian balsam. The valuable acid-resisting properties of this balsam are not sufficiently known to photo-engravers.—*The American Printer*.

No More German Poster Ugliness.

THE BEAUTIFUL IN COMMERCIAL ART.

THE vulgar and barbaric German poster and commercial art, which a coterie of subsidised Berlinites was forcing on the advertisers of this Country, with the assistance of writers with "advanced" ideas in the press, seems to be almost completely routed out by this time, says the *Inland Printer*, which has led an attack in an article entitled "Cultivating the Ugly." It showed by comparisons that German design was

A RETURN TO THE ART OF A SAVAGE.

It shocked one by its ugliness, and consequently attracted attention, which was what the advertiser wanted. Since that time The American Association of Commercial Artists have completed a survey of the subject and report that: "The German school of commercial art has been one of the most effective means of propaganda developed by the Teutons. Its outstanding characteristics are brutality, bestiality, abnormality and gross physiological appeal. The Poster Advertising Association has also rejected the barbaric poster, and has come to the conclusion that the same qualities that make any picture pleasing are demanded by the advertiser "in order to satisfy the innate hunger of the great public for colour and beauty." Our most popular war posters prove this. So it behoves our artists to study the beautiful in the work of the Latins and the Greeks. In other words, we are to have another renaissance, such as followed the defeat of the barbarians in 1453, and our young country should lead in it.

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THE STORE FOR MEN.—This masterpiece of advertising which has well been described by a contemporary as "Art for Trade's sake," has been issued by Messrs. Marshall, Field & Company, of Chicago, for the purposes of advertising their store specially devoted to men's wear, and illustrates the working principles and policy of the Company.

It consists of 40 pages, half of which are in very bold type, the other half is devoted to pen-and-ink illustrations, each full of human interest and exceptionally well drawn. In fact, the art work is of a very high order, and is the work of some clever artists.

Some idea of the impression likely to be made upon the recipient may be gathered from the statement that the size of the pages are about 16in. x 11in., and that there are about sixteen or eighteen full page illustrations, and that the whole is printed upon high-class paper, with a beautiful velvety texture.

The outstanding feature of the work is "quality," and we feel sure that both the house that has issued the booklet, as well as the printer who has produced it, may well be proud of the work they have performed.

THE AUCKLAND WEEKLY NEWS, Christmas Number, 1918, shows that the publishers have succeeded in overcoming the difficulties presented by the conditions of business that had to be encountered during its production, for the work shows no abatement of the high quality for which this weekly journal is noted.

The Christmas Number is as full of high-class illustrations as any of its predecessors, which for quality and finish leave nothing to be desired.

As specimens of current process work the illustrations are distinctly good, and show that our conferees on the other side of the world have little to learn in the art of reproduction, either in monochrome, two or three colour.

THE NEW ZEALAND WEEKLY PRESS, Christmas Number.—All we have said of the former applies with equal force to this issue. Evidently a very great amount of care and attention has been given to the preparation and production of the Christmas Number, and it reflects the highest credit upon those responsible for its publication.

Altogether these two Christmas Numbers are works of which the publishers may well be proud, and show that New Zealand can vie with the Mother Country in all that pertains to this class of work.

THE MAPPIN & WEBB (CANADA) CATALOGUE, produced by the Gazette Printing Company, Montreal, is a veritable work of art, consisting of over 100 pages of well-finished half-tone and line illustrations, many of which show considerable ability by the artist retoucher as well as by the manner in which they are dis-

played, though there are pages where crowding has been carried too far.

As is usual in a catalogue such as this every page is not of equal merit, some are really high-class, while others fall below this standard, though even these may be pronounced good.

The process work has been carefully done by skilled workmen, and the printing shows every sign of care and determination to excel.

Altogether this catalogue reflects great credit upon those concerned in its production, and they have every reason to be proud of it.

THE BURROUGH'S CLEARING HOUSE, which has a circulation of 50,000 monthly among the banks and financial institutions in America, is as we have previously stated almost a faultless production. The "get up" of the monthly is of the first order, and the illustrations are a real feature.

We wonder what English house would think of issuing a high-class fully illustrated magazine for the purpose of interesting bankers in their speciality, and do it with such consummate skill? Yet it must be evident that such a venture brings a satisfactory return, otherwise it would not continue.

The numbers for the current year are as well produced and full of human interest as ever, and reflect the highest credit upon those in charge of the publication.

THE BUREAU OF ENGRAVING OF MINNEAPOLIS send us two of their most recent pieces of advertising literature, both of which have an attraction for the reader, yet they have a different appeal. They are not so much specimens of the work of this Company as appeals to the imagination of the recipient, intended to leave an impression that will not soon fade.

In this they evidently will be very successful, for no one once interested will readily forget the fact that this company can produce effective work.

MESSRS. LINDENMEYER, of Upper Thames Street, E.C., call special attention to their Alimint half-tone writing papers, which they say is the only genuine paper of this class produced.

How often a letter heading would be made far more attractive, and from an advertising standpoint much more useful, could it have a half-tone illustration worked in with it. But the usual run of writing papers are useless for this purpose. We therefore feel that Alimint will find a useful field, and will in time come to be in great demand for this purpose.

The specimens of half-tone blocks printed on this paper show a great variety of subjects, all of which come up exceedingly well, though of course some classes of work are more suitable than others.

Specimens can be procured at the offices of the Company upon application.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

The Printing Trades Exhibition.

AT the conclusion of the 1917 Printing and Allied Trades Exhibition—the exhibition in which so many process houses are interested—it was resolved that the next one should be held twelve months after the conclusion of the war—that is, that a clear year should be allowed to elapse before another should be held.

In accordance with this arrangement, immediately the Armistice was signed, Mr. Bridges, who has organised the whole of these Exhibitions, approached the Agricultural Hall authorities and obtained the promise of a date during May, 1920, and at once proceeded to communicate with those who have previously taken part in these exhibitions.

In doing this Mr. Bridges felt he was acting strictly in conformity with the resolution referred to, but very soon there came to hand rumours that the trade would not be in such a position that they could make an effectual show in 1920, although nearly eighteen months would have expired since the conclusion of the Armistice.

In consequence of this rumour Mr. Bridges at once took the wise course of calling together the Advisory Committee and consulting with them on the subject, and after a long and friendly discussion in

which most of those present took part it became very evident that the heavy machinery section felt it would be quite out of their power to do justice to the occasion should the 1920 date be adhered to as they were still under Government control and had no idea when they would be allowed to resume the entire management of their own businesses.

This being the position, it was for the meeting to consider whether it was advisable to hold an exhibition for the other portions of the trade, as there could be no doubt that as far as the Process, Stationery, etc., portions were concerned they could make an effective show whichever date was decided upon, and would probably prefer the earlier date.

All present felt that without the presence of this machinery section the Exhibition would be shorn of a great part of its interest and would not in any way be equal to its predecessors, and as Mr. Bridges affirms that it is his intention that every succeeding exhibition shall surpass all previously held there could be but one course to pursue, that was to postpone it till May, 1921. This was accordingly decided upon, and Mr. Bridges was instructed to make all preparations accordingly.

Mr. John Hislop.

IT is with deep regret we have to announce the passing away of Mr.

John Hislop, the Senior Director of the firm of Hislop & Day, Ltd., of Edinburgh, who we believe was the pioneer of process engraving in Scotland, and who by earnest endeavour built up a business with such a reputation for quality of which any one might well be proud.

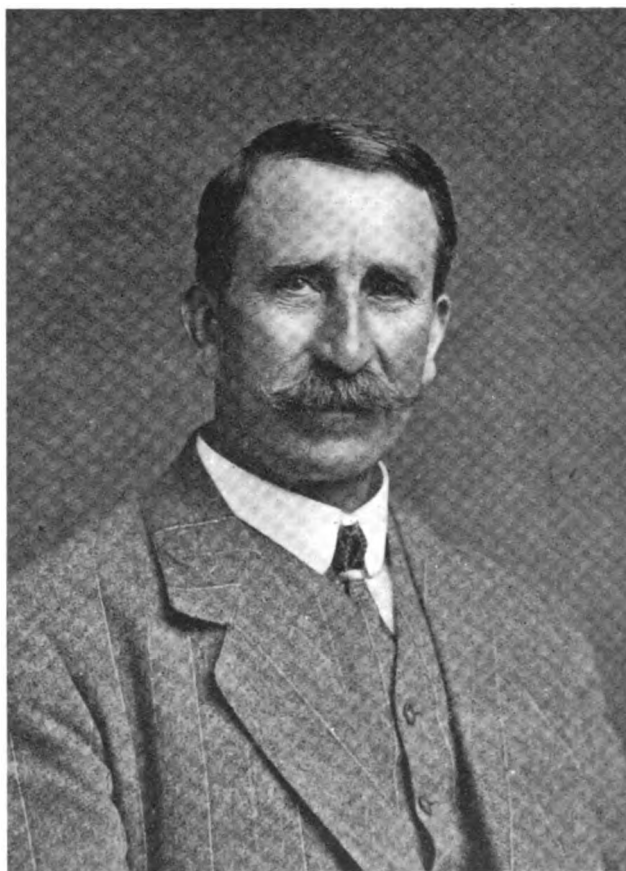
Like so many other pioneers in process he had no technical training in that industry. What he desired to know he had to dig out of treatises procured here and there, but more especially out of the hard school of experience.

Coming to Edinburgh from the country he learned the art of die cutting, and so proficient did he become, and so ambitious, that at the early age of 26 he commenced

business on his own account and met with a fair amount of success.

Early in the nineties the fascination of "process" took such hold upon him that he decided to venture on the troublesome waters of a master process engraver, and

as was the lot of those early adventurers he met with a full share of worry and hardship, but by diligent plodding on, learning by the everyday experiences that came to him by his enthusiasm for the best, he eventually found that he had become known for the quality of his work, which earned a very high reputation, especially



✓ Mr. JOHN HISLOP.

in colour, and as a consequence found better times in store for him.

Resolving that his son should have all the benefits to be obtained by a thorough technical training, he sent him to London to the Bolt Court School, there to undergo

a complete course of study, spending there such time as was needful to enable him to become thoroughly proficient. The lessons there learned have borne good fruit, for the son, upon whom the direction of the business now devolves, has for some years been the technical manager of the firm, and is well known in Scotland for his enthusiasm in all that pertains to process, especially upon the scientific side, and whose knowledge and skill has been called upon for some extremely exact work required by the Government.

In 1898 he assumed as partner Mr. T. C. Day, F.C.S., a gentleman well known in Edinburgh successful circles and present secretary of the Company.

Apart from his business, Mr. Hislop took a keen interest in philanthropic

work of all kinds, particularly amongst the poorest class of children in the town of Leith, for whom he instituted and carried on, for over thirty years, a Sunday morning "Free Breakfast," and for almost an equal length of time organised an annual day in the country for five, ten and ultimately fifteen hundred of them. He also established in Leith a very successful Day Nursery, and many other similar works.

In 1901 he entered Leith Town Council after an exciting election, and held office as a Bailie for a number of years.

He also was very well known in printing circles, and was elected to the Executive Board of the "Scottish Alliance."

He leaves a widow, three sons and a daughter, having lost two sons in the war.

A New Field for Half Tone.

DEALING with the offset printing process in the "Printing Art," a writer points out that some most remarkable results are being obtained by several leather novelty houses by printing pictures in fine screen half-tone. The plates are made by the high-light process, and are printed on the rough leather as perfectly as if they were printed on fine-coated stock. They are printed on several colours of leather, and in large sizes, as many as 6 by 8 up, on a large skin; this is afterwards cut out in the form of a small skin by die cutting; it is then stained in the different brown tints along the edge and hand coloured with an air-brush. This produces a rich Spanish painted leather effect that is truly remarkable. One firm is experimenting in printing in colours by the same process, but unless the leather is mounted first on a good heavy

sheet of paper the register is not so good. The leather people say that they can get certain kinds of leathers that are shrunk in the tanning process, which will obviate most of the registration difficulties. This opens a new field for the offset process, and, incidentally, may give a hint to some of our bookbinders who by adopting the method could turn out finely decorated covers at a comparatively small cost. The many different uses to which the offset process is applicable will come to be known only as time goes along and the process becomes better known to manufacturers, who are, so to speak, outside of the printing fraternity. Bookbinders certainly should not be the last to benefit by any advantage that may be gained by the use of offset printing on leather. Of course it would be equally serviceable for printing on cloth or other covers.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. D. GREENHILL,
The Sun Engraving Co., Ltd.,
Milford Lane, London, W.C. 2.

Treasurer—

MR. EDWARD W. HUNTER,
The Sun Engraving Co., Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.

Telephone: 5596 Bank.

Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Annual Meeting.

THE Third Annual Meeting of the Federation brought together a goodly company at the Connaught Rooms, Great Queen Street, London, on Wednesday, March 19th, where many friendships were renewed and fresh acquaintances made that must be for the ultimate benefit of the trade as a whole.

There can be no doubt that this Annual Meeting was one of the most successful yet held, for there was a record attendance, and an earnest manner about the delegates that betokened a determination to tackle the unusually long programme with the vigour necessary to its completion within the time allowed, for the intimation had gone forth that we must close our meeting within a given time as the room was required for other purposes; but fortunately for the accomplishment of the work to be done this, by the changing of the room during lunch time, was found to be unnecessary. Consequently, the delegates were able to pursue the consideration of the various matters unmindful of the flight of time, therefore felt no restraint put upon them such as would have been the case had we been compelled to close at the time originally fixed.

According to the programme the President, who occupied the chair, called us to order at 12.15, and immediately called upon the Secretary to read the notice convening the meeting. This was followed by the Secretary reading the

minutes of the previous Annual Meeting.

There can be no doubt that these minutes dealt very exhaustively with the work done twelve months ago, for it was evident from the length of time it took to read them that they must have occupied a goodly number of pages in the minute book, and as there was no challenge of any portion it was an evident triumph for the Secretary and his assistant, who made such voluminous notes and succeeded in transcribing them with such precision that they gave satisfaction all round.

The accounts, presented by the Secretary, showed that the finances were in a healthy condition and left a fair working balance after all expenses have been met.

The Chairman, having signed the minute book, we proceeded to the election of a President for the ensuing year, but before doing so the retiring President, Mr. A. Dargavel asked the meeting to relieve him of the onerous duties of the position. He reminded the meeting that he had now occupied the position of President for some years during which his task had been by no means easy owing to the circumstances that have surrounded the trade; a task however, that he had willingly undertaken and performed to the best of his ability; but he would now like to be relieved of the office so that a new President might bring a fresh mind and possibly new methods into play that would be for the benefit of the trade.

That the meeting did not intend to part with Mr. Dargavel without a struggle was soon evident for as soon as Mr. P. Bailey (Strand Engraving Co.) rose to propose

that the retiring President be re-elected, everyone seemed conscious that he was expressing the unanimous feeling of the meeting.

As Mr. Bailey reviewed the work of the President during the past and previous years, he unfolded a page of history known only to those who have worked together with the President, and it was well that the tribute to his work should have been made at such a meeting, and we may say that we believe it enhanced the already high regard the members of the Federation have for their President.

Mr. Bailey was followed by several other speakers, each urging Mr. Dargavel to withdraw his request, and when at length the vote was put to the meeting, it was unanimous in favour of the motion, so much so that he felt he could not resist, and consequently amidst applause consented to go on for another year.

The next item in our procedure was the election of the Vice-President, and Mr. Eamer (The Marshall Engraving Company) moved the re-election of Mr. Vaus, which was duly seconded and would have been carried had it not been that Mr. Vaus persisted in a request to be relieved of the position. He assured the meeting that the little he had been able to do had been done very heartily and willingly, but he felt he could not, in consequence of the pressure of other duties upon his time, give the President the support he should like to give him and which he felt it was only right he should expect. He, therefore while rejoicing at the re-election of the President, must persist in his request to be relieved of the Vice-Presidency and was pleased to nominate Mr. D.

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Greenhill (The Sun Engraving Company) to that post. This having been duly seconded, was put to the vote and carried unanimously, at the same time Mr. Vaus was heartily thanked for the services he had rendered during the past year.

Mr. P. Bailey was also thanked for his services as Auditor, and re-appointed for the ensuing year.

The next business was the election of six members of the Council to take the place of the five who were retiring according to rule, and one who desired to be relieved. Messrs. Hunter, Smythe, Vaus and Bailey were unanimously re-elected, and upon a ballot being taken to fill the other two vacant places Mr. Huggins (The Arc Engraving Company), and Mr. Gilbert (Wallage & Gilbert), secured the highest number of votes and therefore became members of the Council for the ensuing year.

At this stage the President announced that it was lunch time so the meeting adjourned, and a very enjoyable lunch was partaken of by the seventy representatives gathered from all parts of the Kingdom.

Immediately at the close of lunch and while "coffee and cigars" were being enjoyed, the President took advantage of the opportunity to call upon Mr. Elliott, of the Industrial Reconstruction Council, to address the delegates upon the importance of the Industrial Council, upon which they would be called to give a vote during the afternoon.

Mr. Elliott evidently felt he was at home with his audience as well as with his subject, as was shown to be the case as he proceeded to speak of the work already accomplished and to show in what way a Joint Industrial Council might be of great use to the process trade. His

address was full of encouragement and was evidently appreciated by the audience, who followed it with the deepest attention, especially when he proceeded to point out a few ways in which the outline scheme prepared for this trade could be improved.

Immediately following this address Mr. A. J. Bull, Principal of the Bolt Court School, was called upon to give us an address upon Technical Instruction and the Apprentice Question, and it was quite evident that Mr. Bull had made out a good case when he called upon the members of the Federation to give all the support possible to the work of the school, and to take the scholars from the school as apprentices rather than any lad they could lay hold of promiscuously, for he felt quite sure of his ground when he asserted that his lads, having had a year or two's training in the school, must of necessity be more valuable as apprentices than lads who have not had any such training.

The President voiced the thanks of the representatives, and assured these gentlemen that their presence and addresses were greatly appreciated, and would without doubt bear the desired fruit.

Immediately following these addresses we returned to the work set forth in the agenda, the first item of which was the President's address.

The President met with a hearty welcome as he arose to perform his task, and proceeded as follows:—

I do not propose to try your patience by going into every detail of the work of the Council during the past year. I will merely touch shortly upon a few of the principal items. You all know what increases in wages you have had to pay and what return you have got for the

increased outlay. I don't think any of us regret the year that has gone, with its worries and anxieties, and to many of us physical danger.

There have been the usual number of Council meetings, and a great deal of business has been got through. As you all know the question of getting sufficient labour was one of extreme seriousness. The Military situation left us all very short-handed. In these circumstances the Council did something to relieve the situation by their efforts to get the trade placed on the list of certified occupations, in which they were ultimately successful. After the Armistice they were also able to get prior consideration from the National Service Department, after making very strong representations, accompanied by a return of the whole trade, until at last men were released so freely that there now appear to be more waiting employment than the trade can absorb.

One of the matters which took up a good deal of time and attention was the Stationery Office contract. We felt it was a matter to be carefully dealt with as it was one which vitally affected the interests of the whole trade. The action which the Stationery Office have taken, in commandeering the output of two firms, is not altogether satisfactory. But we have still to see if the price schedule is to be broken down or not, and the situation is being carefully watched. But we know that the present controller is not entirely without sympathy for the trade and its aspirations, and there is some hope that a satisfactory solution of the difficulty may ultimately be arrived at.

Some doubtful points have been cleared up with the National Health Commissioners and instructions have been issued to members.

Negotiations have been entered into with the Newspaper Owners' Association with a view to obtaining their co-operation, but so far these have been unsuccessful.

A conference has been held with the Master Printers' Association with a view to establishing a more cordial relationship, and to ascertain if it is possible for us to grant anything in the way of preferential terms for printers. I hope we will have time presently to take the feeling of the meeting on this important matter.

METALS.—A good deal of time has been spent by the Metal Committee in dealing with this difficult question, and at times the situation has given rise to much anxiety. To add to our troubles, restrictions were set up by the United States authorities, and we had the greatest difficulty to get the goods shipped. I have received information that the War Industries Board of the U.S.A. intended, if the war had gone on any longer, to entirely stop the export of copper for engraving purposes; the tonnage required being comparatively small and the matter being regarded as of little importance in relation to the copper required for munitions. I think we have reason to congratulate ourselves that we have been able to pull through as well as we have done.

The home rolled copper and zinc supplied by Messrs. Penrose, have been useful in supplementing the supply of imported metals, and although the quality has, so far, been rather disappointing, they have probably done the best possible in difficult circumstances.

The proposal that the trade should collectively participate in a scheme to establish its own rolling plant is one which will require very careful consideration. But if such a scheme could be carried

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through successfully and so ensure us against being placed in the ignominious position in which we found ourselves during the war, I need scarcely say what a great advantage it would be.

The conditions as to the return of scrap copper to the Ministry of Munitions was removed on December 16th last, after representations by the Metal Committee.

I hope it will not be long before the restrictions on imports will be removed when the control of metals by the Federation will no longer be necessary. The members of the Metal Committee will be very pleased to give up their job which has involved a great deal of their time.

I think we may fairly congratulate ourselves on another successful year's working of the agreement. It is a satisfaction to remember that this agreement has been made possible by the federation of the whole trade. A few firms, chiefly small ones, have tried to maintain their independence, but they have gradually come to recognise the value of the work which was being done, and have come in one after another until, at the present time, there is no firm of any significance, with perhaps one exception—a firm in the West of England—which is not in the Federation. I recall that one firm wrote saying they had watched the progress of our work and being convinced that the Federation had accomplished what it set out to do, they were pleased to join in the good work and become members. The same feeling has no doubt impelled several firms to join who previously held themselves aloof. It is satisfactory to know then that the Federation is stronger to-day than ever. It has been suggested now that the war is practically over, that our trade will not be able to withstand the efforts of interested parties to break down

our price agreement ; that our members may possibly default in view of offers which may be made to tempt them away from their allegiance. I for one have no faith in these fairy tales. I cannot believe that anyone in the business who has experienced the advantages and security which have been brought about by the Federation would ever contemplate for a moment breaking away, either openly or secretly. There is no reason why the advantages which have accrued during the period of the war may not be continued during the succeeding peace. In fact, with the industrial unrest which prevails at the present time, and the chaotic conditions which exist in many parts of the world, it is just as necessary, for our continued security and protection, that we should foster and develop the spirit of union which has proved of such value to us during the difficult period of the war.

There is another point in connection with the agreement which I should like to emphasise, and that is we have a duty in seeing it maintained and strengthened, not only to ourselves, but to the workers ; and we hardly realise how much we owe to the workers. We are told every day in the newspapers—and events tell us -- that there is a new spirit abroad, that a new gospel is being preached, that the welfare and common interests of the community is of more importance than the interests of any class or section, that no section shall dominate the other, and that an equitable share of the good things of life is the right of every citizen.

This is a doctrine which I am sure we all heartily agree with, but which is not always found acceptable in practice ; but as time goes on I think we will have to recognise it and make provision for it. In the meantime our trade agreement is

a step in the right direction ; it has shown that we are at least abreast of the times, and that under it the workers are having their due proportion of such benefits as may accrue from the increased prosperity which the agreement has given us. There is still much to be done, however, in the way of showing that the interests to both masters and men are interdependent and it is hoped that the idea of a joint Industrial Council, which is coming up to-day for consideration, may afford the opportunity for frank and open discussion of every question connected with our industry, and so re-enforce the mutual feeling of confidence and good-will which already exists, and which has characterised all our relations with the men's Society.

Our clear duty then, is in the first place to support the trade agreement by every means in our power as the foundation upon which we can build up the industry of process engraving so that it will be a source of satisfaction and pride to every one concerned in it, men as well as masters ; and so that we may at the same time be able to take our part in the great work of reconstruction which is just beginning.

With regard to the immediate future : Subject to Labour troubles in other industries being smoothed out an opportunity presents itself to the process trade such as has never before been offered to it. The present year is—as our friend Mr. Eamer in the "Process Monthly" has called it—a year of glorious opportunity. We all want to forget for a time the weary months and years of the war which broke the health of many of the strongest. We are ready for a period of renewed business activity, free from the blighting influences of worry and anxiety. We want to be in a position to pursue with tranquil

minds the exacting but always interesting details of one of the most artistic businesses in the world.

The President was heartily thanked for his address, and at once called upon Mr. Entwistle to give the report of the year's work of the Northern Counties Association which showed that this Association had been very active and had done a great deal of useful work during the year, both on their own account and on account of the Federation as a whole ; altogether the report was very illuminating, and showed how beneficial these local or sectional councils might be if there were more of them throughout the country.

The next business was the report of the Process Engravers' War Memorial Fund a subject in which the President is greatly interested as was shown by the earnest manner in which he recommended the fund to the sympathy of the meeting.

He proceeded to show that already nearly £900 had been promised and appealed for at least £1 000 to be completed at once.

Responses to this appeal began to manifest themselves when Mr. Vaus took the matter in hand and in his own inimitable style proceeded to show that he is as good a beggar as he is a business man, and as he was not to be denied he very soon announced that the £1 000 figure was passed and now of course it must be 1 000 guineas. This of course requires several more subscriptions before it is reached but as those houses who have not yet subscribed are to be reminded we have no doubt that the required amount will soon be reached. A complete list of the subscriptions will be published.

We next came to the item of greatest interest, viz., the new price schedule which is to consolidate the old prices

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and the additional 40 per cent. into one figure, and so make a minimum price for all kinds of process work which it is expected will become the standard minimum rate, and any advances or reductions in prices that may be necessary in the future will be made by percentages on the figures given in this list.

As it was proposed to make some alteration from the existing scheme, one or two of them of vital importance, it was fully expected that very great interest would attach to this discussion, and we were not long in doubt on that score, for immediately we had proposals from several quarters, proposals that needed very careful and clear thinking in order to avoid falling into error. In one case a proposal was made that seemed thoroughly simple and eminently practical, and many of us on the spur of the moment seemed to feel how strange it was such a principle had not been already embodied in the scheme, and as we at once concluded it was thoroughly sound, it was carried by a unanimous vote, only, alas, to discover immediately after that the vote had to be revoked, for some of the representatives quick at figures had pencilled on their cuffs or programmes a few problems which conclusively showed that after all the proposal was as thoroughly unsound as it was at first supposed to be sound. We therefore had to be very careful not to fall into a similar pit in other portions of the work.

Several of the propositions called for earnest consideration and met with considerable discussion, so that when the decision came to be taken every member felt he could give his vote believing he was confirming a sound and straight proposition. These will, of course, be further considered by the Council, and tested

in every way, and if found to give satisfactory results will be incorporated into the new list of prices which will be distributed by the time this is published.

Much interest centred round a remark made by one of the provincial representatives pointing out where varying results would be obtained by charging up certain classes of work under alternate methods proposed, and it took some time to discover the best way of avoiding such a result, the aim being to so clarify the existing arrangements so that under any given set of circumstances the result should be the same or nearly so ; in the end this result was secured.

A proposal emanating from the Midlands, that a further price item was needed in the half tone list, so as to provide for much of the high-class catalogue, machinery, furniture, and many other classes of similar work, led to a most interesting discussion, and it was soon evident that there was a real need for some such addition otherwise this class of work was done at a loss. So unanimous was the opinion that the vote was carried practically unanimously.

The whole trade will be under a debt of gratitude to some of the provincial representatives for the searching criticisms they had given the price schedule prior to the meeting, the result of their examination tending to the greater completeness of the same.

Having at length made the new price schedule as perfect as it seemed possible to make it, the next business was the proposal to establish a Joint Industrial Council for the process trade on the " Whitley " lines.

The proposal was entrusted to Mr. Eamer (The Marshall Engraving Company) whose task had been made very

easy owing to the illuminating address given by Mr. Elliott during the lunch hour.

Mr. Eamer gave a résumé of the course the proposal had taken during the past year, and announced that the Men's Society had given their adhesion to the scheme.

As practically everyone present was quite familiar with the subject, there seemed little need for discussion, and when the question was put to the vote it was carried without any dissent.

The outcome of the vote will be that in the near future there will be brought into existence a Joint Industrial Council for the process trade which it is hoped will prove of great value to both employers and employees, as here can be discussed all questions of interest to the trade, both sides being represented and having equal voting power, so that all meet on an equal platform, having one purpose in view, viz., the welfare of the craft.

The last items on the programme aroused more discussion than perhaps any other, viz., the question of preferential and further discounts, some favouring these proposals, others as strenuously opposing them.

It is strange how houses in the same trade and doing very similar classes of work arrive at differing conclusions as to the practicability or otherwise of certain proposals, each one giving a considered opinion based upon the experience gained in the course of their business.

After a most interesting and illuminating discussion it was very clear that the two sides were about equal in numbers, as a consequence it was impossible to do anything in the way of arriving at a decision that would be acceptable to the whole trade. The question must there-

fore be left in abeyance until further light has been obtained upon the subject. Some day, when further evidence has been accumulated and further thought has been given to the matter, it may be possible to come to a unanimous agreement.

And so the meeting came to an end. We think the best annual meeting we have had and certainly the one in which the greatest amount of interest in the work to be done has been displayed by the delegates, who throughout showed a keen appreciation of the various points requiring their attention and decision.

Mr. Bierman (Arthur Cox Company) voiced the thanks of the delegates to the President for so ably presiding over the meeting. His remarks met with hearty approval from all present, and so we dispersed, each going away more than ever convinced that the Federation has been the salvation of the trade, and more than ever determined to do all in our power to maintain it in the fullest vigour.

A FEW "DON'T'S" FOR OTHERS.

DON'T keep bad work: destroy it.

DON'T be content: be ambitious.

DON'T theorize: practise.

DON'T seek good subjects: avoid bad ones.

DON'T imitate: originate.

DON'T consider the means: consider the end.

DON'T despair: aspire.

DON'T attribute failure to your tools: it is the sign of a bad workman.

DON'T avoid difficulties: meet them.

DON'T forget art is long: secure permanent results.

DON'T trust to luck: trust yourself.

DON'T hope for success: work for it.

✓ *Standardisation in Process.*

IN the writer's position as editor of the "Process Engraving" department of "The Inland Printer" during the past quarter century, it has been his duty to reply to queries from every country and these two facts were always evident: Outsiders unacquainted with the artistic nature of our work, have in conventions and in books accused us of less than ordinary intelligence for the reason that we did not standardise all our methods and work exactly in the same groove, when the fact is it cannot be done.

Secondly: These very queries and the varying opinions of correspondents prove this fact: the different workmen given precisely the same chemical solutions and the same materials, will from the same subjects produce different results. This is proved again whenever an attempt is made to make duplicates of the same picture by the same workmen—they will never be twice the same. Each artizan puts into his part of the engraving all of the art he knows and as no two men have the same degree of artistic instinct the product is different, but is nevertheless, art, though it may not be as good art as we would wish.

Painters and sculptors, born with artistic talent assert themselves without any schooling and so it is with the photo-engraver—that is the one who succeeds. He is at the work because it appeals to his artistic nature. Too often he is struggling along without art training. A few years ago the Executive Committee of the New York Photo-Engravers' Union called the writer into conference to decide which direction education for the apprentices at photo-engraving should take.

After a discussion lasting well into the night it was unanimously agreed that art training was the first and most essential requirement.

Now that a learned judge has shown that our profession is an art it remains for us to rise above the manufacturing element that dragged us down. All those engaged at photo-engraving can by art training and self-respect, help to bring our calling not only to its proper place in the graphic arts but restore American illustration to the leading position it once held. *S. Horgan.*

✓ *Books on Colour.*

ASSISTANTS who mean to make photography their profession should look into the question of colour, as pictorial art of the future will be intimately concerned in the study; some authorities—particularly those connected with the vast textile industry—declare the future is bound up with it. Students of painting are bidden to study nature secrets, but students of photography will find the scientific side profitable and to their liking. Since 1835 over sixty books have been written, a fourth of that number being published in London, a fifth in New York. The Americans by their productions of the last ten years, promise to surpass us on all points—by numbers, high price; they command complete range of subject, interest, and research. As all books of recent years seem to be written round Rood's "Modern Chromatics" students will do well to commence with that treatise as it contains valuable information clearly written well illustrated with woodcuts and diagrams, but unfortunately has no colour plates to assist the text. This book having passed through many editions a clean secondhand copy is more often seen than any other, and is worth looking out for.—*Burlington.*

Rendering Service.

IN the commercial world there is a fixed rule that goods must be sold for more than they cost. For example, an article that costs 4/- is perhaps sold for 5/-. Now, why should the man who pays 5/- for this particular article pay 1/- more for it than it originally cost? In other words, what does the 1/- represent? It represents service—the service that is rendered by any firm to its customers, in either manufacturing or assembling from various sources and carrying goods in stock. Maintaining a sales organization, an accounting force and a shipping department is all a part of this service. And for this service every firm is justly entitled to charge a reasonable percentage over the original cost of the goods, which margin is called profit, but in its last analysis is nothing more nor less than the amount paid for actual service rendered by a firm to its customers.

Photo-engravers—justly, we believe—like to think of themselves as following a profession, but any profession from which one derives his livelihood must be conducted on business principles if it is to be successful. It is therefore important that the photo-engraver should understand what service means, and why and how it should enter into the price of the goods which he turns out.

Where we find two photo-engravers equally well qualified to make good plates, the failure of one as compared with the success of the other is largely accounted for by the difference in service rendered. Good service wins confidence and patronage; poor service turns patronage away. If your patronage is not what you

think it ought to be, study the quality of service which goes into your work and you will be pretty sure to find what is the trouble.

In the long run, the quality of your service must reveal itself in the prices you charge. This is a point which some are slow to grasp. They begin by thinking of service as a mere matter of personality, an attitude of mind, a spirit of accommodation, which it would be too commercial to count in reckoning their prices. Then when their profits prove too small for the energy and thought and brains—the service—which go into the plates that they make, a reaction comes and they give poorer service because there seems to be no money in giving better. After that the business peters out. This is the downhill story of many a concern.

As a matter of fact, the word "service" sums up practically everything the photo-engraver has to sell. He cannot separate it from his goods, and if he does not charge for it he will not be successful.

The best service and the lowest prices cannot in any shop long go hand in hand. A man cannot both be the fat man and the lean man in the side-show at the same time and be a success at either one. People will not pay their money to see the man half-way between. As Elbert Hubbard said "Quality pays and is the only thing that does pay. Do not expect to beat the price-cutter at his own game. You cannot expect to maintain a high standard and a low standard in the same shop." Nor will an intelligent patronage expect it, either.

—From the *Photo Engravers' Bulletin*.

The Influence of Excessive Contrast.

SOME subjects cannot be accurately exposed for all portions because of the tremendous difference in the luminosities of the different parts. Thus, in landscape, the sky is overtimed if the dark foliage in the foreground be given enough time ; or if the exposure be cut to save the clouds, the shadows are woefully blank. It is all a case of compromise, at best ; and the single-coated plate cannot compete with the double-coated in handling contrasts. The old "golden rule of photography" must be borne in mind : "Exposure for the shadows and let the high-lights take care of themselves." Then, if one "develops for the highlights and lets the shadows take care of themselves," the rendering will be as good as the particular brand of plate can give ; but failure is sure to occur if subjects having excessive contrasts are attempted.—"American Photography."

Scientific Management.

AN outstanding feature of the Industrial Conference recently held is the demand of Labour for shorter hours and higher wages. Lord Leverhulme and other employers believe that this can be done without lessening output.

Appeals are made to the working man to abandon the ca' canny attitude and other means of restricting output, and it is pointed out to them that the average output per man in America is three times that of

a man in England working under similar conditions. But the working man is not alone to blame for this. We must have in all industries greater efficiency based not so much on individual effort as on scientific management.

American and other countries have led the way in this respect, and the astonishing results obtained by English firms who have adopted these methods should be more widely known. It is a mistake to suppose that it is applicable only to engineering trades, it would be difficult to find any industry whose efficiency would not be improved by adopting scientific management.

The Industrial Reconstruction Council, 2 and 4 Tudor Street, have taken up the matter, and at a public meeting recently, held at the Institute of Journalists elected a sub-committee to arrange a series of fortnightly conferences which would deal with this subject in all its bearings. Further particulars may be obtained from the Organising Secretary, I.R.C., 2 and 4 Tudor Street, E.C. 4.

The Industrial Reconstruction Council.

THE Rt. Hon. J. H. Whitley, M.P., has accepted the office of President, and Lieut.-Col. G. L'Estrange Malone, M.P., the office of Chairman of the Executive Committee of this body.

The Industrial Reconstruction Council, which was founded by Mr. Ernest J. P. Benn, is a propagandist body having for its object the awakening of national interest to the need for a complete system of industrial self-government, based on the principles of the Whitley Report.

Developer Without Acetic Acid.

By Stephen Horgan.

GUSTAF R. MAYER, Buffalo, says that the following wet-plate developer works well in his hands and dispenses with acetic acid:

He first makes a saturated solution of gallic acid in water. As gallic acid is only slightly soluble in water it will be found that 100 grains of gallic acid is about all 16 ounces of water will absorb. To 16 ounces of this saturated solution of gallic acid he adds an equal quantity of water in which a little less than an ounce of iron sulphate has been dissolved. The latter is added to the former while the gallic acid solution is being briskly stirred, after which ordinary nitric acid is added until the solution turns a dull green colour, when it is ready for use. Mr. Mayer thinks that the jolt the war has given us will do us good by compelling us to try new ways of doing old things better.

—From *American Printer*.

Two Views of Business after the War.

A VERY able business man recently gave his associates his opinion of economic conditions after the war. He saw swollen prices, billions of inflated currency, heavy taxes, millions of soldiers looking for jobs when war's enormous demands for goods had ceased; strikes, turmoil, idle munition plants. He believed that looking back over war's vast senseless destruction men would feel a

profound disillusionment. Times would be bad.

Within a week, as it happened, another business man, as able and of as great reputation as the first, gave his view of after-war conditions. He saw a far more abundant supply of money for industrial expansion than ever before, war financing having disclosed unknown possibilities in that direction. He saw industry, thanks to war, much better organized than ever before; an ample labour supply and a better equipment for maintaining amicable relations between capital and labor. Taxes would be high, but production would be greater, giving a bigger fund to pay taxes out of. Reconstruction and deferred improvements would create tremendous demands for materials and labor. Manufacturers and merchants would have a new idea of the world's buying power. Plans that would have looked too big in 1913 would look small after the war. Coming of peace after this war nightmare would stimulate men, and as they looked back on the tremendous things they had accomplished since 1914 they would look to the future with higher hope and greater confidence than ever before. Times would be good.

Both of these men—one an Englishman, the other an American—were equally right.

If we look at it in the first way, times will be bad. If we look at it in the second way times will be good. What business conditions are after the war will depend, first of all, upon the state of our minds. If we keep our courage, our punch, our common sense, try hard to harmonize our differences and pull together, we shall have good times. Otherwise we shall have bad times.

—*Saturday Evening Post*.

THE PROCESS MONTHLY.

ONE of the most *recherché* pieces of advertising that we have seen for a long time is "A Feather in Our Cap," a booklet issued by the Charles Francis Press, of New York, giving reproductions of a number of letters received by the firm, expressing the satisfaction of the writers at the work done for them by the "Press" in question.

That a firm who can design, print and publish such a booklet as this should receive such commendatory letters occasions no surprise whatever for a good impression is made upon the recipient, even before he opens the package, when however that is done the cover immediately arrests attention by its dignified simplicity, and by the novel device of having the tip of an actual feather worked into the same. The end papers have been specially designed, and the text is simply beautiful, not merely pretty but beautiful from the point of the master printer whose aim is to give real dignity combined with artistic merit, but keeping to the fore the particular purpose for which the work was designed.

The paper, block making, printing, and binding, all bespeak that the Charles Francis Press have the ability to do work of the highest possible merit, and that they make good use of that ability.

ETCHINGS, the beautiful little monthly, issued by the process house of Messrs. Gatchell & Manning, of Philadelphia, is always sure of a hearty welcome by those who are favoured by its arrival. The modest specimens of the work done by the firm show the very superior quality to which they attain. We see vast quantities of process work, but we never see anything superior to that produced by this firm, whether it be line, half-tone or colour. It is a great pleasure to gaze upon work of such uniform excellence, and we feel sure that the effect of these issues must be that of enhancing the already enviable reputation of this famous process house.

CANTONMENT LIFE, Camp Frinston, Fort Riley, Kansas, U.S.A., is a publication showing the various activities of this huge camp, which was planned and erected in five months—July-December, 1917—at a cost of 10,000,000 dollars.

The publication has been created and produced by the Baird Engraving Company, of Kansas, who are responsible for the entire production from the photographing to the sales counter.

The work shows that the Baird Company were fully equal to the demand made upon them, for the issue is one of which they may well be proud, and their official photographer is evidently an expert of a very high order working with a splendid instrument. The view of 25,000 soldiers on the hill of the Camp on Christmas day is a really remarkable photograph, full of detail and life-like.

The lay-out, the art work, illustrations, and printing are all first-class, and speak well for the resources of the Company.

THE NORTHERN is the house organ of the Northern Engraving Company of Canton, Ohio, and always meets with a hearty welcome on account of the good things contained therein, though we must confess that the size adopted by the publishers does not appeal to us at all, and we think that with so good an organ it would pay the management to consider carefully an improvement in this direction.

The specimens of the work of the Company shown in these issues prove that they pay considerable attention to quality and aim at "only the best," and it is a great pleasure to note the care and ability bestowed upon the same.

The January number is an excellent one, and is, we think, one of the best yet issued.

GETTING YOUR BOOKLET ACROSS is a plea for making your catalogue, booklet, etc., etc., so attractive that it will always "get across."

The speciality advocated in this booklet is that they should be bound in cloth covers, and of course in cloth produced by the Interlaken Mills. No matter how small the production, the argument is that if properly bound in cloth covers that costs very little more than the usual art cover, they will always reach the head of the department or firm and will make such an impression upon the recipient that it will not be laid aside or thrown into the waste-paper basket, but will be preserved for future reference.

The get-up of this booklet so far as the lay-out, the illustrating, the paper and printing are concerned, are all exceedingly good, but seeing the sole reason of the publication is to show the superiority of cloth covers for such an issue, we are more than surprised that the finish of the cloth cover is not very much smarter than it is. In our judgment the binding is by far the worst feature of this booklet, and we feel it would pay the Company well to give this matter their careful attention in future issues.

THE RAWSTHORNE ENGRAVING COMPANY send us a specimen of their booklet "Behind the Screen," which gives some idea of the various kinds of work on which they are engaged. This booklet is well got up and was finding a useful place in the firm's advertising, but the war's needs put an end to its usefulness, we hope but temporarily, for without doubt it was destined to have a great influence upon the future of the firm issuing it.

THE THUMB TACK is a breezy folder issued every fortnight in order to call attention to the Commercial Artists' Association of Southern California. This it does very successfully, and the talks seem eminently suited to the clientele of the Association. We, however, should hardly like to send them to prospective customers in this country, but then the point of view is different and for their purpose they are very good indeed.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

The Process Engravers' War Memorial.

IN a recent issue we inserted an appeal on behalf of the extension contemplated at Lympsfield Convalescent Home, part of which will in future be known as the Process Engravers' War Memorial.

In supplementing the appeal made by the Federation of Master Process Engravers we felt quite sure that the scheme needed but to be fully put before the process engravers of the country in order to secure their hearty support, and we are happy to say that this belief was well founded.

The interest taken in the scheme by the President of the Federation, Mr. A. D. Dargavel, who was really the father of it, is well known, and so well did he work to make it a reality that success seemed assured from the commencement.

Those who attended the Annual Meeting of the Federation will remember how he advocated making the Memorial a worthy one, also how well Mr. Vaus backed his efforts and secured a number of donations.

So that our readers may know how the fund is progressing—for we hope many others will desire to follow the example of their fellow engravers and subscribe—we give a complete list of donations promised to date, and shall be pleased to publish in a subsequent issue any further promises from half a guinea upwards, that are sent to the Federation Secretary,

Mr. G. B. Manley, Clarence House,
Martins Lane, Cannon Street, E.C.

	£	s.	d.
Sun Engraving Co., Ltd.	110	0	0
Vaus & Crampton, Ltd.	110	0	0
Swain, John & Son, Ltd.	105	0	0
Lascelles & Co., Ltd.	105	0	0
Amalgamated Press, Ltd.	52	10	0
Arc Engraving Co., Ltd.	52	10	0
Eyre & Spottiswoode, Ltd.	52	10	0
Walter Boutall, Esq.	50	0	0
Gee & Watson	26	5	0
Knighton & Cuttis.	25	0	0
Strand Engraving Co., Ltd.	25	0	0
Marshall Engraving Co., Ltd.	25	0	0
Grout Engraving Co., Ltd.	25	0	0
British Photo Engraving Co.	25	0	0
Gilchrist Bros.	25	0	0
Walker, Emery, Ltd.	25	0	0
Dalziel Foundry, Ltd.	21	0	0
Direct Photo Engraving Co., Ltd.	21	0	0
Garratt & Atkinson	21	0	0
Century Engraving Co.	21	0	0
Browne, T. B., Ltd.	21	0	0
Sedgwick W. F., Ltd.	21	0	0
Craske, Alfred, & Co.	20	0	0
Photochrom Co., Ltd.	20	0	0
Bourne, A., & Co.	15	15	0
Alexander & Co.	15	15	0
Half Tone Engraving Co., Ltd.	15	0	0
Northern Photo Engraving Co., Ltd.	15	0	0
Press Etching Co.	12	0	0
Philipson & Son	10	10	0
Dux Engraving Co.	10	10	0
Hamel, E., & Co.	10	10	0
Cox Illustrating Co., Ltd., Arthur ...	10	10	0
Engraving Co., Ltd.	10	10	0
Wallage & Gilbert, Ltd.	10	10	0
London & Provincial Reproduction Co., Ltd.	10	10	0
Art Reproduction Co., Ltd.	10	10	0
Siviter Smith & Co.	10	10	0
A.I. Engraving Co., Ltd.	10	0	0
Engravers' Guild, Ltd.	10	0	0
Avery Illustrating Co., Ltd.	10	0	0
Hill & Co.	10	0	0

Carried Forward £1212 15 0

THE PROCESS MONTHLY.

	£	s.	d.
Brought Forward	£12	15	0
Western Morning News Co.	5	5	0
Northern Art Reproduction Co., Ltd.	5	5	0
G. B. Manley, Esq.	5	5	0
Dellagana, B., & Co., Ltd.	5	5	0
Wilson & Hudson	5	5	0
Tillotson & Son, Ltd.	5	5	0
Bristol Photo Engraving Co., Ltd.	5	5	0
Hopwood & Co., Ltd.	5	5	0
Entwistle, Thorpe & Co.	5	5	0
Liverpool Daily Post (Allan Jeans)	5	0	0
A. J. Bull, Esq.	3	3	0
Universal Process Engraving Co.	2	2	0
Vitty & Seaborne	2	2	0
Ashworth & Meredith, Ltd.	2	2	0
George Harris, Esq.	1	1	0
	£1,275	10	0

It will be seen that the list totals to nearly £1,300, and as less than half the whole of the process houses have subscribed we make an earnest appeal to those who are still considering the matter to determine that the final total shall not come to less than £1,500, and so make the effort worthy of the trade, and a worthy memorial of those who have made the supreme surrender in the defence of their fellow workers.

Water-proof Cement for Broken Graduates.

ALL photo-engravers have in use every day a most valuable water-proof cement, though few know it, and that is the enamel solution they use for sensitizing the metal plates. If the broken edges of a glass graduate or funnel are coated thinly with enamel, pressed together with a wooden hand-vice or bound tightly with cord and put in the sunlight until the enamel is hardened through the action of light, and thus made insoluble, it will be found to withstand all but extremely hot solutions, and they should not be put in a thick glass graduate any-way.

How to Prevent Labour Troubles.

By H. N. Casson.

THE next great task ahead of us is the prevention of labour troubles. The PREVENTION, mind you not the remedy. A labour trouble is like the 'flu—you can prevent it by certain means, but once you have it—Heaven help you. There is no remedy.

Dozens of theorists are talking about "solving the labour problems." That is all piffle. Once it becomes a problem, you can't solve it. The right thing to do is to PREVENT it from becoming a problem.

A labour trouble is exactly like a lung trouble.

In its earlier stages a lung trouble is not dangerous. It can be overcome by fresh air and more food and long breaths.

In its middle stages it can be cured by drastic measures, such as going to South Africa or Colorado, where there is a drier, finer air.

But in its later stages nothing can cure it. It rots the lungs. It saps the vitality. All that the poor victim can do is to wait for the inevitable end—death. So it is with a labour trouble. Every firm has a small one, once in a while. This cannot be helped and it is not serious. The cause may be a new worker, or a new foreman, or a new process. The trouble may be only a symptom of readjustment.

But when your labour trouble becomes CHRONIC—when it develops into a steady every-day annoyance, then there is no quick, easy remedy. You can't heal it with a pill, either from the Government or any other place.

You must pay the penalty for your years of carelessness. You can't mess up your workers for ten years and then escape the consequences by putting in a canteen and a few clean towels.

You see, workers are PEOPLE, not THINGS. That is the great hard fact that employers must learn. They are people—physically, mentally, emotionally, spiritually.

TREAT THEM AS PEOPLE—that is the keynote of good management.

Why do workers strike? Is it not, in most cases, to prove that they are people and not things?

Why do they combine against the man who gives them work? Is it not because they feel that he cares nothing for them as individuals?

Recently, in a London Club, I met a financier, one of the swanking autocratic sort.

"Ah," he said to me, condescendingly. "So you are Casson, are you? By the way, I would like to send you to one of my factories, to see if you can't get the work out of my people."

"What do you think your people are—lemons?" I replied.

"What do you mean?" said he.

"I mean this," I answered. "I mean that my job is not to get work OUT of people, but to get it IN. Out of nothing, nothing comes. If you regard your people as mere THINGS to be driven and squeezed, you are making the silliest and most costly mistake that an employer can make."

To tell the strict truth, I do not sympathise with an employer who has a strike, any more than I do with a man who has the delirium tremens.

I find that invariably a man has the D.T.'s because he has been drinking too

much; and that almost always an employer has a strike because he has not treated his workers as people.

I have known at least a score of large firms that have never had a strike. Why? Because they treated their employees as co-workers and friends.

At any rate if you are an employer and if you have labour troubles, the wisest plan is to BLAME YOURSELF AND HUMANISE YOUR SHOP.

Get rid of your starch and your stiffness and your—"I - thank - the - Lord - that - I - am - not - as - other - men."

Mix with your workers. Talk to them. Ask them questions and you'll be surprised to find how wise they are.

If one of your ablest workers is in debt because of illness or a funeral, lend him £20 at five per cent. Don't let the money-shark or the pawnbroker ruin him.

If one of your most competent girls is seriously ill, send her some grapes or some flowers. Why not? She is one of your people, and you must be loyal to her if you expect her to be loyal to you.

There is as much CASTE in some British firms as there is in India. This caste is not only unchristian. It is absurd. It is dangerous. It is inefficient.

These are new days and you must either adapt your methods to the year 1919 or follow the Kaiser.

IF YOU ONLY KNEW WHAT YOU ARE MISSING, BY BEING ALOOF AND ALONE! IF YOU ONLY KNEW HOW MUCH MORE MONEY AND OUTPUT AND PEACE OF MIND AND HAPPINESS YOU MIGHT HAVE BY RUNNING YOUR BUSINESS ON A FRIENDSHIP BASIS, YOU WOULD CEASE TRYING TO BE A GRAND DUKE AND TRY HUMBLY TO BE THE LEADER OF YOUR PEOPLE.

—*Efficiency Magazine.*

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. D. GREENHILL,
The Sun Engraving Co., Ltd.,
Milford Lane, London, W.C. 2.

Treasurer—

MR. EDWARD W. HUNTER,
The Sun Engraving Co., Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.

Telephone: 5596 Bank.

Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

FOLLOWING the Annual Meeting the rejuvenated Council has found plenty of work to do, and heartily addressed itself to the task that lay before it. Of course, the holiday season somewhat interfered with the regularity of the meetings, but this in no wise unduly delayed necessary work.

The attendances at the meetings have been fully representative, and shews that the members of the Council do not forget that "every man owes some part of his time to the upbuilding of the profession to which he belongs." If the whole of the members devoted anything like the amount of time to the welfare of the process trade that the members of the Council devote to it what an enormous success would result.

During the month one or two complaints have been made to the Council in which it was asserted that prices had been cut. These complaints were thoroughly investigated, the outcome of which showed that in one case a provincial house was breaking the agreement in one particular, although in all other cases they were securing prices in advance of the schedule rates. It took quite a long time to convince this firm that they must come into line on every point, that no one point could be waived in their favour, otherwise every other house in the trade would be able to claim a similar privilege, with the result that the agreement would fall to pieces. The Council felt compelled to take up a firm attitude in this case, and

made it perfectly plain to the house in question that while it fully believed there would be no cause for further complaint, yet any repetition of such a breach would meet with very serious consequences.

The necessity for the revised price list in which the 40 per cent. has been incorporated, has been shown by two cases reported in which estimates had been given for work at schedule prices, but in which there had not been any mention of the 40 per cent. to be added. One case was reported by the firm who gave the estimate. They found out their error and at once reported to the Council and gave full explanations, and at the same time advised the customer of the correction.

In the other it was clearly shown that the omission was an accident, and that had the work been secured it would have been correctly charged. Such errors, however, cannot now be made, as the new price list gives the actual price to be charged in every case.

The Council felt that a reprint of the article which appeared in a recent number of this magazine, giving a comparative scale of the prices of process blocks throughout the world, would be of use to members of the Federation. They, therefore, ordered a number of copies to be printed. These are now in the hands of the Secretary, who will be pleased to supply them to members upon request.

One of the results of demobilisation is the re-opening of some of the process plants that were compelled to close down in consequence of the proprietors being called upon to do military service. In other cases new firms, or new combinations, are being arranged, and it is a source of great gratification to the Council that these newly commencing concerns are asking for admission into the Federation.

In every case they are made acquainted with the requirements of the Federation, and having willingly subscribed thereto and paid their dues, are admitted as members, and the Council wish them every success in their new venture.

Should any members of the Federation know of any new process house commencing in any part of the country the Secretary will be pleased to receive particulars with a view to securing their membership.

The committee appointed to revise the photographers' section of the price list found the work full of difficulty as may be expected when a price is to be arranged so as to cover all grades of work—for photography cannot be scheduled under varying grades as can process work. What is ridiculously high for one grade being ridiculously low for another. Consequently a compromise had to be arranged that it is felt will be reasonably near the mark. When this schedule is printed it will be issued for the use of members of the Federation and not for distribution broadcast.

Arising out of the vote at the Annual Meeting ~~re~~ a closer working arrangement with the Federation of the Master Printers, a committee was appointed to go further into the question, and to interview the Printers' Federation and discuss the matter in all its bearings. The committee met the Printers' Federation Committee, and after a free discussion and an examination of all the points involved, it was decided to recommend that the arrangements be carried into effect; this has since been accomplished and it is hoped that great benefit to both trades may accrue from the arrangement.

During the month a report has been

THE PROCESS MONTHLY.

received from the Birmingham district announcing that a meeting of the Midland houses had been called in order to found a Midland Association of Master Process Engravers on similar lines to the Northern Association, with headquarters at Manchester. The Council welcomes these district associations working together within the Federation, as they give opportunity for local arrangements being made that are not applicable to the trade as a whole. Certain districts specialise in certain classes of work, of which other districts know little or nothing; in such cases these district associations can be of great value to the local houses to say nothing of the benefits that must accrue to every house from the closer intimacy that arises from the principals meeting together around a common table, and discussing local matters and even matters of wider application, in a spirit of mutual confidence and with a mutual desire to help.

Complaints have been made that some process houses entice employees to leave their employers and join up with the house, holding out some special inducements. The Council cannot, neither has it any desire to, in any way interfere in the free exchange of employment desired by any employee. It, however, looks upon any attempt by one house to encroach upon the domain of another house with strong disfavour. Moreover, as the practice is illegal, it is hoped that every member of the Federation will refrain from any such act.

The matter of most momentous importance during the past month was the receipt of a letter from the Secretary of the Men's Society asking for a further increase in wages and other benefits for his members. This letter came as a

great surprise, inasmuch as the war being over and prices in general on the declining side there seemed to the Council to be no reason for the increases. However, as it is always best to get information at first hand it was decided to ask the representative of the Men's Society to meet the Council at once and lay their case before them. Consequently a letter of invitation was sent to which the Secretary replied that he would arrange for a meeting at the earliest opportunity.

At the Annual Meeting, Mr. A. Grout, of the Grout Engraving Company raised a legal point as to the responsibility of the process engraver when he has despatched blocks to a third party at the request of his customer.

It would seem that some customers consider that they have not accepted delivery until they have evidence that the third party has received the blocks in other words that the responsibility of proof is on the shoulders of the process engraver.

As neither of the officials or members of the Council of the Federation are versed in the law it was impossible to give a definite reply to the query, especially as it seemed that various opinions had been expressed by so-called competent authorities as to whose shoulders the responsibility rested upon.

As this was a point of deep interest to every process engraver, the Council considered it would best serve the interests of all concerned if they secured an authoritative decision upon the point from the Federation's solicitors; consequently the following query was put to them: "It is contended that when customers pass proofs and instruct the engravers to send the blocks to a third party the engraver should not be responsible after the work

(“The Process Photogram.”) May, 1919.

leaves his hands. The Council will be glad to know if this is in accordance with the law.”

The reply to this is as follows :—

“ In reply to your letter the question raised is covered by the Sale of Goods Act, 1893.

Where the customers have passed the proofs of the blocks and the latter have been completed for the purposes of the specific order, the property in the blocks passes to the buyer, or as you call him, the customer, at once.

By Section 32 of the Sale of Goods Act, 1893, where in pursuance of a contract for sale, the seller is required to send the goods to the buyer and equally, therefore, to a third party, being the nominee of the buyer, delivery of goods to a carrier for the purpose of transmission is *prima facie* delivery of the goods to the buyer.

The carriers if acting as common carriers are then responsible for the safety of the goods and are therefore, liable to the customer or the third party and no liability attaches to the engraver after delivery to and acceptance by the carrier, assuming of course the goods are properly packed. As you know the Postmaster-General is in a different position and is not a common carrier and is not liable for loss unless the parcel has been registered and possibly to be strictly safe, the engraver should in transmitting by post get the instructions of the principal to that method of forwarding, though if the forwarding by post was the method usually adopted between the parties and known and approved by the customer, the engraver would be discharged from liability on proof of posting.”

As this is a most important ruling, every process engraver should take careful note of same and file it for future reference.

✓ *Etching Solids Grey in Line Plates.*

IN order to get a thorough understanding of the cause of line solids sometimes etching grey substitute a sheet of clean plate glass for the zinc plate and roll it up with ink, using the leather roller just the number of times you do when rolling the zinc, then hold the plate glass up to the light and examine it with your small magnifier, you will not be so surprised that the acid gets through between all the isolated grains of ink. If you think the dragon's-blood will fill all the holes between the ink grains, powder it and brush it clean just as you do the zinc plate and again examine it with the magnifier. You will still find minute holes where the acid can get through. By carefully heating the plate glass on both sides you can, without cracking it, incorporate the powder in the ink, and still some tiny holes will be left for the acid to get through. If after using the leather roller to cover the glass with a delicate layer of ink you will roll the glass with a smooth composition roller many times, you will find that this will flatten out the grains of ink left by the leather roller and leave a film of ink so homogeneous that when charged with a resin powder, acid can not get through. This trouble is more frequent during cold weather, or when the etching ink is used too stiff. It can be corrected largely by adding a few drops of linseed, palm or other oil to the ink and having the plate quite warm during the rolling up with ink. For the best etched linework the use of a leather followed by a composition roller is quite essential to get a perfect coating of ink.

An Hour's Work.

By *Ernest J. P. Benn*, Editor of "*Ways and Means*."

WAGES and hours are all the talk in the world of industry to-day.

Continual demands for higher wages and shorter hours occupy the bulk of the industrial stage, and to the minds of many members of the public the whole industrial problem is summed up in the subject of the proper price for an hour's work and the proper number of hours in which to work. It can be argued, however, that this question of wages and hours is relatively unimportant. To begin with, it is as well to recognise that it never will be settled. There would be an end of progress and development if a stage were reached where everybody was content with his position and everybody willing to settle down for the rest of his life to enjoy exactly the degree of opulence and comfort, or the lack of it, which he had then reached. The march forward of mankind depends almost entirely upon a healthy spirit of unrest and discontent, and it is all to the good that we should recognise that our united aim must always be the improvement of the position of everybody. As a matter of fact, this question of wages and hours is relatively unimportant. It does not get to the root of the matter. It is not the question which is holding up industry at the present moment in this country. A much more important question, which is very seldom debated, but which will have to come to the front before we are very much older, is the problem of what constitutes an hour's work or how to get a real hour's work for an hour's pay.

The best examples of this type of problem are perhaps to be found in the

building trade. On any building job it is possible to find numbers of men deliberately restricting their effort and of a set purpose doing a very little amount of work in a given amount of time. The house famine, which is having such disastrous effects upon every grade of society, is in no small measure due to the adopted policy of labour in the building trades. That policy is, of course, the outcome of bitter experience in connection with unemployment, and it is due to the adoption by the building trade unions of the fallacies of the theory that there is only a given quantity of work and that it must somehow be made to go round. It is high time that some prophet with the ability to catch the ear of the working man should arise who would expose not only the fallacy but the wickedness of this line of argument. It is time that we recognised the weakness of the old school of industrial economics, and high time that all of us understood that over-production is an impossibility and that unemployment as a result of output is a risk that is past. Thanks to the development of transport and means of communication between nations, there is no excuse to-day for any argument as to over-production so long as any of the peoples of the world are short of commodities.

Exactly where the campaign against *ca'canny* should start is not very easy to see; the worst thing that could happen would be an attempt to bully, or lecture, or educate the working man only on the subject. This curse, for it is really very little less than that to industry, has not arisen out of the evil intent of the

working classes ; its real source of origin is undoubtedly to be found in the stupidity of the old-time employers and in the tendency which was at one time universal to cut a piece rate as soon as it showed signs of producing a decent living to the labourer. The facts are, of course, that if our friends of the building trade, or for that matter of any trade, would do twice the work in the same time they would do much more than halve the cost of the job or double the demand for the article. In "Trade as a Science" a very simple illustration is given to show how this question of an hour's work really operates. It is assumed that the costs of an article work out something like this :—

Labour	1/-
Materials	1/-
Machinery, rent and other fixed costs.....	1/-

	3/-

It is then assumed that the labourer is willing to do twice as much in an hour as he does at the moment and receive double pay ; the same sum then works out in this fashion :—

Labour	2/-
Materials	2/-
Machinery, rent and other fixed costs.....	1/-

	2) 5/-

	2/6

Here is a case where labour earns twice the money and the finished job costs nearly 20 per cent. less in consequence. This case is put forward as a very simple illustration of what is, in fact, a very complicated problem. It is, of course, absurd to suggest that there are many trades in which organised labour deliberately pro-

duces half the product that it might ; on the other hand it must be confessed that there are some trades in which this actually occurs. The effect of ca'nny is simply to increase the price, lessen the market, and, as we now see in building, to produce unemployment.

Considerations like these lead us to view with some sympathy such opinions as those of Lord Leverhulme, who talks of a six-hour day. There is no doubt at all that there would be room for still further reductions in hours, and for many considerable improvements in both time and piece rates, if we could as a nation accept the theory that when we are at work we should work with all our might. The possibilities of output have been demonstrated over and over again during the period of war ; where in munition works the co-operative production principle has been adopted some of the results have been little short of miraculous. Cases could be quoted by the dozen. In one plant the operatives on a particular job were paid 1/6½ per hour in April, 1917, and the average output recorded was 15 017. Four months later, after the introduction of a co-operative system, the corresponding rate turned out to be 2/1 and the average output had risen to 18,967. The result was larger output, less expense per unit, and a considerable increase in individual earnings. At the Oxted Conference instances were given where output had increased 40 per cent., 50 per cent., and in one case 75 per cent., wages always increasing in proportion.

The working man does not usually understand that when he wastes his own time that is not the only thing being wasted. There are some operations where the wages to the man or woman are the least important consideration in the matter.

THE PROCESS MONTHLY.

This is particularly true where expensive automatic machinery or other elaborate engineering equipment is used. But there is another consideration, time is important from other points of view : the firm, or the trade, or the nation which can offer delivery a little quicker than its competitors will win the market nine times out of ten. A difference in price is often far less important than a difference in time. A buyer will be prepared to pay a little more for an article which will be delivered at a near date than for one whose delivery will be long delayed. It is quite essential to disclaim in writing in this way any desire to be associated with what is known as speeding up, in the old sense in which the speeding up of production meant the cutting down of wages. This is not our purpose ; we are merely out for economy, for the saving of waste, economy which must be to the advantage of all. Apart altogether from the immediate commercial consideration, the effect of a system whereby large bodies of workers deliberately refrain from putting forward their best must be deplorable. The ultimate problem, therefore, is not how many hours or how much per hour, but how much in an hour. As a matter of fact, most of the trade unions have their own salvation in their own hands. There are very few employers who would not gratefully jump at a suggestion of an advance in wages if it were accompanied by an advance in production. Those advances need not always be exactly proportionate; in the view of the writer the extra output could in many cases be paid for at a higher rate than the normal output.

A DEAD black for lens mounts is made by adding fine vegetable black and a little turpentine to a strong solution of shellac in alcohol.

Reveries of a Worker.

Canto 1.—*Servitude.*

I AM but one of many on this old planet and in my modest strivings to prosper, I am indebted to my employer—to each person who buys of the product of my skill. For by their use thereof my fame may develop. So I will make my price the lowest and will toil diligently and long, doing my utmost to curry favor in their eyes.

I will not press them for payment nor seek to increase the remuneration, but will bide my time in anticipation of the day when they will voluntarily raise my pay. For am I not indebted to them who furnish me employment that I may feed my family ?

Canto 2.—*Service.*

Tho there are innumerable toilers such as I, I will rise and forge ahead of the crowd. I will THINK, for I have brains, and using them will improve my condition.

I have capabilities—and a family, and my family are justly entitled to all that my capabilities can produce. If I give special discounts and low prices to favor my clients, or through shrinking fear of caustic comment, then am I robbing my family of what is theirs—am doing what I would fight another for doing. Also am I toiling long hours and steadily, further depriving them of my companionship and good humor while blindly striving to keep the breath of life in their bodies.

No ! I will toil rest and play in reasonable proportion and with a vigorous, confident mind set myself to produce the best—to sell my product for its full value—a dollar's worth for a dollar. Then can I render intelligent service and may be patronized and trusted as a man of brains.

—FRANK F. GRENE.

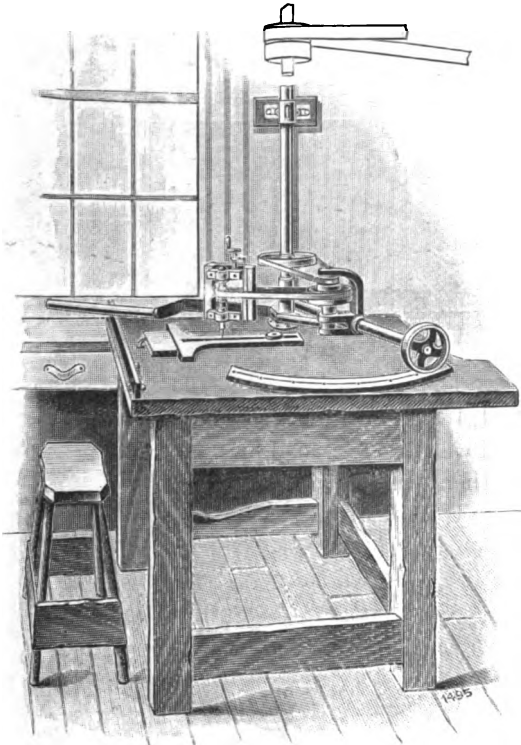
Retrospective.

✓ The Story of Royle's Routing Machine.

How many of those who use the machines built by this firm have any idea of the development that has taken place during the past sixty years, since the first router was placed

ments have been continuously made in the detail, but the principle remains. This, however, is not the first router ever made, that was put up in the wood engraving establishment of Darius Wells fifteen years before the date of our illustration, and was supported from the ceiling by wooden braces and iron straps.

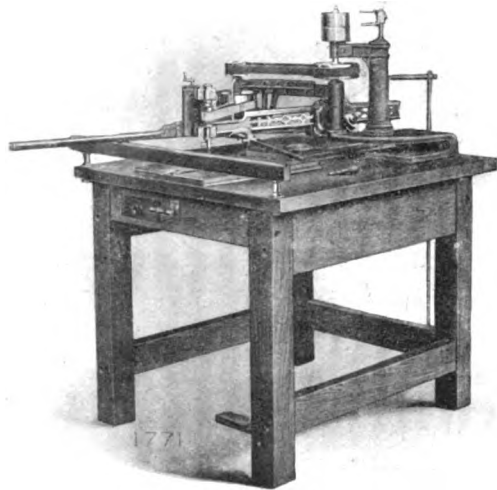
In 1869 a new conception was evolved,



No. 1. Machine made in 1857.

upon the market? Yet there is an interesting history attached thereto; so much so that Messrs. Royle have issued a valuable little booklet entitled "Retrospective," in which they tell the story of the advances that have been made from time to time.

The illustration No. 1 shows that the basic principle of the router is the same today as it was sixty years ago. Improve-



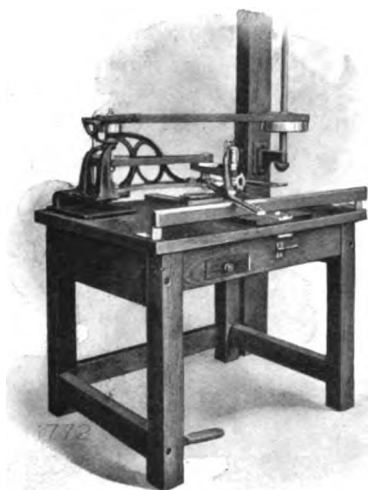
No. 2. Straight Line Router, 1869.

viz., the straight line routing machine (Illustration No. 2). This was an enormous advance upon the curved track and the rolling arm. This improvement enabled the operator to work upon much larger plates in every way than could be done on its predecessor. This was followed by another advance, viz., the radial arm machine, in the year 1874, the best machine made at that time.

It was while this machine was in course of construction that the idea was brought home to Messrs. Royle that these machines could be of great use in the new industry

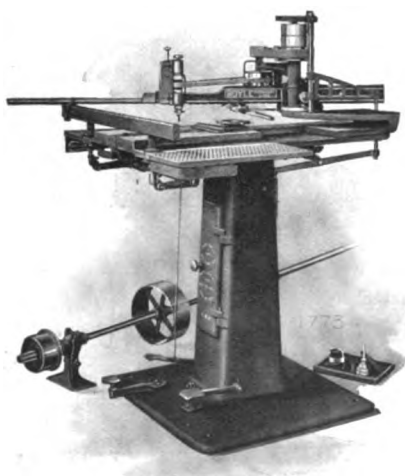
THE PROCESS MONTHLY.

just then developing, viz., the making of process blocks. The tools were all there



No. 3. The Radial Arm Machine in 1874.

—saws, routers etc., etc., but all adapted for wood engraving. Why not experiment and produce tools that will work on



No. 4. Straight Line Machine, built in 1889.

metal just as easily and successfully as on wood, so they turned their attention

to the process trade—with what result is well known to our readers.

In 1886 the first machine was built in which the square wooden table with four legs was abandoned in favour of an iron column and base. This proved so popular and of such great usefulness that it has never been abandoned. Moreover, another improvement was made in the fastening of the cutter, insuring perfect



The Router of To-day.

centring, thus for the first time enabling close work to be undertaken.

During the next three or four years the router crystalized into its final shape. The fundamental principles were so well established that it seemed impossible to change them, consequently improvements henceforth must be in matters of detail. So with untiring energy the firm proceeded to perfect the working parts of their

machines, and experimented in every possible way in order to secure that perfection of excellence for which their machines are so well known.

We very heartily recommend all interested in routers and process machinery in general to apply to Messrs. Royle for a copy of their booklet. It is full of interest, is admirably produced in every way and will well repay a careful perusal.

A copy can be procured upon application to Messrs. J. Royle & Sons, Paterson, N.J., U.S.A.

Ways and Means.

A Weekly Review of Industry, Trade, Commerce, and Social Progress.

THERE are quite a number of reviews on the market dealing with art, literature, politics, music, drama, etc., etc., but not one published hitherto dealing particularly with industry.

As industry just now is the greatest problem that faces the community, and is certainly of the greatest national importance, the promoters of "Ways and Means" deem the time opportune in which to launch a review dealing mainly with this question, and so by this means keep the public better informed on these matters.

"Ways and Means" must not in any way be looked upon as a trade paper. It aims at something greater: at industry as a whole. Neither will it be the mouth-piece of either capital or labour, but will take the standpoint that industry is an essential national service, and will aim at getting the respective views of employers and employed into their proper perspective.

Industrial Reconstruction will be a chief plank in the work of this new ven-

ture, and will aim at securing self-government for industry.

How far it will succeed in this endeavour we shall see. The earlier numbers so far show a vigorous manner and great breadth of view, and we have no doubt the venture will find a field of its own and probably achieve success. The price is 6d. weekly.

I Hate Artists.

I HATE artists. They irritate me. (This may be old stuff but it's true). I hate the lady artists with souls. They wear sloppy garb and an thracite jewellery in "queer foreign mountings." They try to look sad, and subtle, and vampish. But I notice that most of them can gobble up a good steak if they're offered it.

And the men with the souls of poets who wear sprigs of flowers in their lapels and socks to match, and have a lot of curling locks brushed back from their foreheads. They shudder at hideous sights, but most of them can stand their own art.

I hate the commercial variety. The men look with disdain at the poets and try to look like butchers or prize fighters. They try to unionize art and spell soul with a dollar mark. But they're most of them poor. "There's a reason."

And the women of the Commercialized Cult who try to look like their own fashion drawings, and sometimes do, Lord help 'em!

They're such a lot of "good fellows."

They think it helps in their profession.

I abominate artists. They get on my nerves.

—Anonymous.

Messrs. W. & G. Baird, Ltd.

Managing Directors' Record.

MR. R. H. BAIRD, J.P., managing director of Messrs. W. & G. Baird, Ltd., Printers, and members of the Federation of Master Process Engravers, on 30th March completed fifty years of active connection with the firm, and, in celebration of the event, he invited a large company to dinner, including the other directors, the heads of the departments, and the staff of the newspapers.

On the removal of the cloth, the loyal toasts were honoured, Miss Langtry singing the National Anthem as a solo.

An attractive musical programme was entered upon.

The toast of "Our Host" was submitted by Mr. A. W. Stewart, managing editor of the "Belfast Telegraph," and was supported by Mr. Alexander M'Monagle, editor of "The Witness," and musically honoured.

Mr. Baird, in reply, delivered a racy speech, full of interesting reminiscences of the formation and development of the firm.

Mr. Thomas M'Gowan, President of the Belfast Printing Trades Employers' Association, proposed the prosperity of Messrs. W. & G. Baird Ltd., which was suitably acknowledged by Mr. James M'Quitty, director.

In giving "His Majesty's Forces," Mr. John Sayers recounted the achievements of the Ulster Division, and what had been done by the employees of the firm during the war.

Major Baird, R.G.A., replied in felicitous terms.

Votes of thanks to "Our Hosts" and

the artistes for their very much appreciated services were enthusiastically passed, and a memorable occasion concluded with the singing of "Auld Lang Syne" and the National Anthem.

Essential Qualities of Executives.

A LANCASHIRE friend asked me this difficult question—"What are the essential qualities of Executives?"

I sent him the following answer:—

GENERAL MANAGER.—Judicial. Firm. Fair. Decisive. Quick. Statistical. Teachable. Must have Foresight and Aptitude for Planning. Sagacious. Shrewd. Travelled. Must have dislike of Details and fondness for Percentages. A natural Organiser.

WORKS MANAGER.—Practical. Experienced. Must know machines and processes and raw materials. Patient. Observant. Teachable. Studious. Good in Emergencies. Firm.

SALES MANAGER.—Statistical. Travelled. Must know advertising. Magnetic. Keen. Optimistic. Original. Studious. Clever in Correspondence. Aggressive.

SALESMAN.—Active. Industrious. Enthusiastic. Sociable. Persistent. Good memory. Fluent. Reliable. Sporting. Keen. Loyal. Optimistic. Trained in Salesmanship. Popular.

DEPARTMENTAL FOREMAN.—Punctual. Observant. Patient. Firm. Fair. Ambitious. Inventive. Must know machines, processes raw material and workers. Sympathetic. Physically strong and large. Reliable.

—*Efficiency Magazine.*

Competitive Bids.

OCCASIONALLY someone whose business has to do with letting contracts for sewer digging and street cleaning, tumbles or is thrust into a position where his duties include the placing of orders for commercial art work. As all men are not gifted with a divine intuition, and some men find it singularly difficult to grasp new ideas in business practice, it is small wonder that such a one is unable to relinquish his petty contracting methods.

Thus it happens that we are now and then called upon to figure on a job of art work, just as though we were to remove so many cubic yards of earth. It may be that some men dig better ditches than others, but it seems to us that when the specifications are complied with and a ditch so wide, so long and so deep has been sunk, there cannot be much choice in the quality of the work of different men and that the only point of preference is price.

Now in art work quality is everything. The price is of very minor importance. So when it comes to specifications, how are we to judge the quality of work to do? It stands to reason that poor workmen will work cheap, and good ones will figure high. If the buyer really wants to get the best value for his money he should give the order to the one who submits the highest figure, which is no doubt contrary to all his accepted notions.

Again the buyer gets a bright idea and takes a sample of some other artist's work as a standard of quality. "I want work like this," he says, "no better and no worse." Then the competing artists, if their work is better than the sample, must figure on doing less than their best, while those who do inferior work must resolve

to do something that is obviously impossible for them.

When all is said and done, an artist will save time and trouble by passing up the competitive bid orders. Fortunately we are not bothered much by this kind of customer, and if we leave them to the mercy of the outlaw artists, they will soon become disgusted with each other and the evil will remedy itself.—Editor, "Thumb Tack."

The Wisdom of Work.

WHEN a rabbit knows only one hole, the fox gets him.

Independence is really the self-enactment of laws self-resolved.

Change your job often enough and you build a wall against success.

You can't provide a family with loaves and fishes if you do nothing but loaf and fish.

Failure usually finds a victim with the excuse in his mouth of "I-never-had-a-fair-chance."

When you trust to "Pluck" you're more than just a letter better off than the fellow who counts on "Luck."

The grandfather of to-day's laborer knew poverty. His father knew its cause. He himself knows its remedy.

Oftentimes opportunities are merely the results of hard preparation; not infrequently they are misconceived obstacles.

There are two men who never get anywhere—one's on the pole of self-satisfaction, the other's in the hole of self-depreciation.—WARWICK JAMES PRICE.

How much is something worth that costs nothing? Ask the free sketch merchant.

THE PROCESS. MONTHLY.

SIERRA SUGGESTIONS is a four page folder issued by the Sierra Art Engraving Company, of San Francisco, showing how process engraving can be adapted to all kinds of publicity, and giving specimens in each number specially applicable to certain trades. The front page of each issue has a very distinctive appeal, inasmuch as it makes the recipient wonder what it means.

THE STRIESSGRETH-PETAIN ENGRAVING CO. evidently believe in taking advantage of the every day conditions that surround the business of the community and use them in their advertisements, and what is to the point use them successfully. They believe in colour and use it to great effect.

Their folders and blotters all show that this firm is fully alive to the necessity of keeping in closest contact with their customers and in thinking for them as well as of them.

Their card showing dates for putting clock forward for summer time and the return to normal time is very effective, and is almost sure to be kept by the recipients.

THE OSGOOD COMPANY OF CHICAGO are issuing a most effective set of folders, we think them some of the most effective we have seen. The message is most strikingly presented by a picture, and in our judgment they are fully justified in their claim that they make the recipient think by reason of the picture shown. From this they claim that they can do for others what they do for themselves. Every issue we have seen is good, but the best is "The markets of the world are before you." The appeal in this broadside is really irresistible though the only lettering is the title here quoted. Any recipient who could pass this by without pausing to think should not be in business at all.

PREPARE is the title of a pleasing booklet issued by the Colgan Engraving Company, of New York, for the purpose of showing in what way they can be of use to prospective customers. It is well got up and has an effective appeal, and as the house advocates that wherever possible illustrations should be in colour, they have freely used colour illustrations in their booklet. It is well done and is most likely to carry an effective message to those to whom it is sent. A very good piece of promotion matter indeed.

DRILL CHIPS, the house organ of the Cleveland Twist Drill Co., is as full of good talks as usual. It is always well got up and pithy, yet keeps to the front the purpose of the booklet, viz., boosting the goods of the Company. This it does in a most effective manner, yet at the same time there is not any straining after effects. This monthly is always well printed and attractive, and reflects great credit upon the printers and editor.

A FEW months ago we had occasion to call attention to the White Mountain enamel paper manufactured by the Whittaker Paper Company of Cincinnati, a high-class paper for high-class printing.

The same Company now send us copies of their house organ "Paragraphs," which calls attention not only to white mountain enamel, but to their other specialities as well. The booklet bears evidence of great care, and attention to its production. The Company evidently believe in shewing their products to the best advantage and for this purpose use highly-finished process blocks and first-class printing. As a piece of sales promotion matter we have no doubt this monthly is exceedingly successful, and we have great pleasure in commending it.

These specimens of colour printing on white mountain enamel shew what high-class results can be secured by its use.

THE KEYSTONE PRESS, a publication with a purpose, is evidently well named, for certainly the get-up and contents of this monthly is exceedingly good and will without doubt impress those to whom it is sent, that the house issuing it can and will give excellent service and good quality. It is quite alive and while it does not hammer home continually that the Keystone Press is the best it quietly, perhaps unobtrusively, instils into the reader's mind that here is a house that can and will take pains to find out what is best for its clients, and then do all that is possible to give them that best. It is issued by the Keystone Press, of Indianapolis.

THE ACORN, the monthly organ of Chicago Paper Company, is an excellent production in every way. It shows the printer the way to better and more successful work, and not only tells him it can be done, but also tells him how to do it. The illustrating is a special feature, and gives point to the story. The Direct-Mail Convention Number is an excellent production in every way, and should be helpful to anyone who is planning a direct mail service. As might be expected, it being issued from a paper house, the choice of paper has been carefully considered, and the number shows how well adapted this particular paper is to secure the effect desired, viz., a good impression upon the part of the reader.

HUBBLE'S INDIVIDUALITY is a monthly published in the interest of the house of Hubbell, of Cleveland, Ohio, and is full of cheering chatty talks, and as a specimen of the work turned out by the house carries a message that should be very effective, for it is always well got-up and if considered merely as a piece of printing, it is first-class. The taste shown in the display, the colours of the ink, and the layout all reflect the greatest praise upon the house producing the work.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

What is Doing in the Process World ?

TALKING the other day to one of the most prominent authorities in the process world we were asked when the trade was likely to produce some new method of producing half-tone blocks, or whether there was any likelihood of any new apparatus coming on the market at an early date ? There now comes from California a similar query, but this time it is a definite enquiry for a method to produce a given result.

Our enquirer desires to know whether there is any method of planographic printing by the flat-bed type of press which will save costs and so enable a printer to produce limited editions at a cheaper rate than the present method of using relief engraved plates.

In view of the cost of colour plates and colour printing to-day we are not at all surprised at the question being raised even in so crude a way as that given above. We fear, however, there is but one answer, that is that at present we know of no other method than that in current use in every planographic printing plant to-day.

This, however, raises the query, has process reached finality ? For years past now we have not had any developments in the production of process blocks. It is, of course, quite true that there has been

great development in the average quality of process engravings, but where are the new methods, the new ideas, that will transform the trade and lead to a reduction of the costs of production, enabling the process trade to place its output on the market at more reasonable prices, so that the use of these illustrations may become far more general even as they were before the fatal year of 1914.

It is quite true we hear rumours of new methods of printing, etc., in fact it is said that there are secret processes being carefully nursed by the various Governments, secret methods invented for the purpose of remarkably quick production of illustrated matter required for the war. Moreover, that well known authority on process, Mr. S. H. Horgan, tells us that the next few months "are likely to bring interesting developments," though he does not give us any idea in what direction we have to look for those developments. We, however, can rely upon his intimate and extensive knowledge of the trade, and we feel sure he will not fail us. Moreover, the same thought has been expressed by Mr. William Gamble, when he says that "Process is just marking time, but we believe it is destined to make an immense leap forward now that the war is ended." That his belief may

(Continued on page 81.)

✓ *The Future of Process-Engraving.*

Weighty Words by Eugene C. Miller, President of the American Photo-Engravers' Association.

THE photo-engraving industry must play its part in the development of our nation just as every other industry must play its part. It is our duty to conduct the affairs of our respective institutions in such a manner that we will receive a fair remuneration so that we in turn may fairly compensate those who work with us and for us. The photo-engraving industry should be and must be on a profitable basis. If the industry is on a profitable basis everyone connected with it, whether employer or employee, will enjoy his share of the general prosperity. The very nature of the photo-engraving business and of the process itself is such as to call for and demand close co-operation between all parties concerned. It is not a factory product and cannot be manufactured on a factory basis and cannot be sold as a commodity. The very product itself is the result of co-operation between the workmen in the different branches, and everything about the business demands harmony.

We have gone through some very lean years. There has been suffering and losses alike, both of which were borne by employers and employees. The employer suffered from lack of business, which for him spells losses instead of profits, and employees suffered from lack of employment. The workmen could in most cases, and where they so desired, find other employment to tide them over until such time that the photo-engraving business would again be in a flourishing state. The employers on the other hand, were not so fortunate, and as photo-

engraving machinery and equipment is practically useless for any and all other purposes, the employers simply had to stand by their guns and wait for a better day.

That better day is coming, in fact it has already dawned. The demand for our products is growing day by day and in many instances we are already beginning to experience a scarcity of help in certain branches of the business. In no instance does the law of supply and demand work so rapidly as it does in the case of labour. As soon as there is an apparent scarcity of labour, wages go up. Higher wages means an increased cost of production, and when the increased cost of production can no longer be borne in its entirety by the manufacturer, it is then passed on partly or wholly to the consumer through the channels of increased prices for the goods or services rendered.

During the war we learned something of efficiency. Germany had a reputation for efficiency and management. When we found ourselves engaged in war, we set out to become efficient. If you want to know how quickly we became efficient, ask the Germans; they certainly had an opportunity to learn, and to appreciate what they did learn.

Now that the war is over, we are confronted with new conditions. Many people thought that as soon as the end of the war hove into sight, prices and wages would immediately drop. Pessimists on every hand predicted that the bottom would fall out of everything the minute the war ended. In reality nothing of the sort has happened, nor will it happen.

The stock market, perhaps the best and surest thermometer of business and prices, sagged for a few days then began to find itself ; and although stocks went down a few points they soon recovered and to-day we find that even the steel, copper and oil stocks are higher than they were just before the close of the war.

Now when we come to the articles themselves, what do we find ? The price of steel has been lowered somewhat, but the steel workers are receiving the same wages they received before the war ended. The price of copper has gone down considerably. Wages of copper miners have gone down very little. The price of copper stocks is going up, which indicates that the copper companies expect to make some money, and they are not going to make it out of the wages of their workers either. Food has gone down somewhat in price, and no doubt it is in that direction that the greatest and most noticeable drop in prices will occur. All other articles and commodities will remain stationary for some time, and many will go higher. In this latter class belong the products of those industries which derived no benefits from the war itself. Among the leaders of that list is the printing industry, the sixth largest in the country.

As photo-engravers this is what we are facing : A rising cost of production aided by scarcity of labour ; an increasing demand for our products with no indication that the volume of business will soon reach the high level of five or six years ago ; a margin of profit so small that the business is safe only during periods when the maximum output is reached. The margin of profit is not sufficient to be either attractive or safe during periods when the plant is only comfortably busy. It will show an actual loss during slack

periods. The tendency of the business is toward greater fluctuations than ever, and to constantly growing demands for rush service, involving overtime and extra expense.

We have on one hand the workmen, who take the position that they have invested the best years of their life in this business in order to learn it and that they are entitled to returns on their investment, just as the employer or proprietor is entitled to a return upon his investment of money. The workmen desire steady and uninterrupted employment at wages that will enable them to live decently and to give their children at least some of the advantages of education. No one can find fault with that sort of reasoning.

The employers can use exactly the same arguments with the same force, and no fair-minded man could find fault with them either.

That brings us to the point where we can readily understand that if this industry is going to flourish, it can only do so by both employers and employees attaining in a large measure their justifiable aims and ambitions. To do this they must avoid all strife and act along lines of co-operation and mutual assistance. They are really partners in business and they must look upon each other in that light.

The workers in this industry will have no great difficulty in accomplishing their legitimate and proper aims and objects, if they are wise enough to see and appreciate that their ability to get more rests absolutely upon their ability to do more. In other words, ways must be found to enable the workers to produce more saleable products so that the price of the latter will not become prohibitive. Unless this idea is kept in mind, we will all of us be in

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the position of killing the goose that lays the golden egg. There are splendid possibilities for the improvement of methods of production that will enable the workers to produce more with less effort and under pleasanter conditions. All inventions and improvements that have that tendency should be fostered by employers and employees. Senseless restrictions, whether practiced by the workers or their bosses, can only result harmfully to all. No industry can flourish under working conditions that place a premium upon indifference and idleness. Let us view the photo-engraving industry as OUR INDUSTRY, and one that is owned jointly by the workers and the employers. As joint owners we will certainly do nothing to injure our possession. We will do everything within our power to enhance the value of our property.

There may be photo-engravers in this country who do not appreciate or know what the Photo-Engravers' Association has done and is doing. Most of us hate to give credit to anyone else for our success, although we anxiously look for goats on to whom we can pin our failures. If you want to know what this organisation has done for the photo-engraving industry and for the individual photo-engraver, you may get your answer from the supply dealers and other business men who sell their products to the photo-engravers. These will not hesitate to tell you that photo-engravers are now paying their bills better and quicker than ever. That, after all, is the acid test of a successful business.

Do not think for one moment that somehow or other we will pass through this reconstruction period without any effort on our part, and that we will just float along and by sheer luck manage to make a

little money. Nothing of the sort will happen. This reconstruction period is considered by the leading statesmen of the world and by the biggest business men and students of history, to be the greatest crisis that civilisation has ever been compelled to face. If you read the newspapers, you know of the unrest that encircles the entire globe. All of this feeling must be subdued in a peaceable manner. New alignments and adjustments must be made and all of us must learn to fit into the new grooves. To attempt to face such a situation as an individual will leave you in the position of a fish left floundering in the mud after a hasty fall of water. We can, however, meet with this as well as any other situation and cope with it successfully if we learn to think and act as a class--in an organised manner. If all the photo-engravers in the United States were of one turn of mind on any one subject, they would accomplish their purpose.

Avoid the use of stilted and un-English expressions whenever they can be replaced by simpler ones. Thousands of every-day business letters contain the ugly phrases: "We are in receipt of"; when there is no reason why they should not use the simpler English words 'We have received.' Other letter-writers are very fond of the phrase "Please find enclosed herewith"; "herewith" is redundant and quite unnecessary, and it is much simpler to put "We enclose."

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prove to be well founded is the very hearty wish of all progressive process engravers, and it will be a great pleasure to us to chronicle all such inventions or developments from whatever quarter they may come.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

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The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

WHETHER it is in consequence of the glorious weather of the past month, and the holiday feeling abroad, or because every one is in the enjoyment of a feeling of satisfaction at the course business is taking, we do not know, but it is quite certain that the work the Council has been called upon to perform during the month has been exceptionally light—a welcome change from the strain of the past winter and early spring, and a happy augury for the holiday months just in front of us.

One of the most important items of the month's work was that of completing the arrangements for the formation of the Joint Industrial Council. A committee of the Council was appointed by request of the Government Department concerned with these matters, in order that they, with a like committee from the workers' section, might meet at Westminster and get formal recognition and discuss the suggested aims, rules and regulations, etc., in the light of the experience gained by other trades who have such Councils already at work.

The result of the meeting was eminently satisfactory, and it may now be said that the process trade is also among the trades who have organised themselves upon the lines suggested in the report of the Parliamentary Committee, known as the Whitley Report.

The next step will be to call the Joint Industrial Council together so that they may appoint officers, committees, etc.,

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etc., and get to work upon matters within their province.

That the value of the work of the Federation is being very widely felt and greatly appreciated throughout the country, not only by process engravers themselves, but by those engaged in the allied trades, is evidenced by the applications received by the Council for admittance into the Federation. Some very good reasons have been advanced in support of these applications, but the Council has been guided by the strict letter of the constitution and has felt compelled to decline admission to any house which cannot show that it has a process plant in actual use.

Some questions having arisen as to the procedure being pursued by one or two houses in the far north, the Secretary endeavoured to get a thorough understanding of the matters by correspondence. This, however, seemed to involve great delays and did not lead to any results such as the Council felt were thoroughly satisfactory. It was felt that the best, and practically the only, plan to get the questions settled was by a personal interview. This, however, involved a long journey, and would occupy some three days of the time of the delegate. A sacrifice no member of the Council was desirous of making. The feeling, however, was very strong that the President was eminently suited for the work required, and, though he could ill afford the time, he at length consented to undertake the mission, and he has the most hearty wishes of the Council for his success, which it is fully believed will mean the closer association of houses who now look upon each other merely as competitors.

At a recent conference between the representatives of the Men's Society and the

Federation Council, a number of questions were down for discussion. That of the greatest importance was so full of difficulty that neither side could see a clear way out of it, and though the matter was carefully considered and thoroughly discussed from every point of view, the discussion extending over the greater part of an afternoon, it became manifest that the Federation Council could not accept the views of the Men's Society, neither could the latter accept the views of the Federation. It was therefore considered wisest to allow the matter to stand over for the present, in the hope that time would bring about a solution of the question, in which case it will have worked out its own salvation.

At the time of the decision no one had any idea that circumstances would almost immediately occur that would open up new views upon the matters discussed, but so quickly do matters move sometimes that the views of to-day are completely reversed on the morrow; such was the case here, for within a few days of the occurrence of the *impasse* named above, the way opened in a most remarkable manner by which the Council was enabled to come to a decision much more favourable to the views of the Men's Society than could have been thought possible but a few days earlier.

The outcome of these deliberations, etc., has been the granting of a further increase of 5/- per week to journeymen, members of the Men's Society, and is to be payable as from June 1st.

There were several other matters put forward that the Federation Council felt they must comply with, the chief being that of payment for holidays.

It must be borne in mind that the process trade is linked up, for good or

ill, in some way with the printing trade ; in fact all the Men's Societies connected with the printing trade are federated with a view to an harmonious working together. Consequently, when the printing trades in their new agreement granted their employees full payment for all statutory holidays and any proclaimed holidays, it was to be expected that the employees in the process shops would ask for the same advantages. Consequently, when their request was put forward the Council felt it was the wisest thing to fall into line with the rest of the trade and granted the request.

The consequence of this is that henceforth all holidays will be paid for. By this, of course, is meant national holidays as distinct from local holidays. These latter, seeing that they differ in various localities, must be subject to local conditions, and any arrangements that employers consider most suitable within the lines of the holiday clauses of the agreement.

As the rule comes into force at once it follows that the holidays for the Peace festivities will be included in its scope, and will be paid for accordingly, and notices to this effect have been sent to every member of the Federation, and the Council hope that the willing acquiescence of every employer in this arrangement will further consolidate the feeling of good will that exists between the Federation and the Men's Society.

During the month there has been reported to the Council activities undertaken by the Union of Paper Workers, etc., and questions have been asked as to whether the Union is recognised by the Federation.

The only Union with which the Federation has any agreement is that of the

Amalgamated Society of Lithographic Artists, and Process Workers, therefore any other Union claiming authority over the conditions of employment of anyone working in connection with any process house does so without any recognition by the Federation, and should any house be called upon to comply with such requisition a report of the matter should be sent to the Federation Secretary at once.

Questions have been raised as to whether such productions as name plates for machinery, etched memorial plates, etched dials and brass door plates, etc., etc., come under any of the regulations and scale prices laid down in the Federation price lists.

The reply of the Council was that these classes of work are not included in the price list. They are of a special nature and do not really come under the designation of process work. As a consequence those producing this class of work are at liberty to decide upon their own prices.

Another matter of interest to the trade was raised by a question asked by an important house as to whether it is permissible for a house to quote for producing process blocks and print a given edition from same for a lump sum.

The matter had been dealt with previously, when it was decided that such a quotation was not in order, but that all quotations must show the price of the blocks separately from that to be charged for printing same, otherwise it would be possible to cover up cut prices for process work by the house giving the estimate, should they be so inclined.

ACCEPT criticism because it is your friend. Your opponent will flatter you.

Photographic Printing on Wood.

A WOOD ENGRAVER, of St. Louis, who asks for a simple formula for printing photographs on wood from reversed negatives, is offered the following :

The sides of the wood block are rubbed with heated wax or paraffin. This is to keep moisture from injuring the wood. Three solutions are kept in stock ready for use :

1. Gelatin : 16 gr. of gelatin to 1 oz. of water.
2. Silver nitrate : 80 gr. of silver nitrate to 1 oz. water.
3. Citric acid : 40 gr. of citric acid to 1 oz. of water.

The white of an egg is beaten to a froth and left standing over night.

To sensitize a block, take : White of egg, 1 dram ; gelatin solution, $\frac{1}{4}$ dram ; best zinc white, $\frac{1}{8}$ oz. ; ammonium chloride 5 gr. Rub these to a paste in a glass mortar and while rubbing drop slowly into the paste 30 minims of the citric acid solution and 30 minims of the silver nitrate solution. Paint this on the wood block very thin, seeing to it that the block is completely covered. Dry quickly in the dark and print under negative in the sunlight as usual, timing the print so as to keep a record of what length of time is best, which will vary with different negatives and different lights. Fix the print in the darkroom by holding it face down for a few minutes in a tray of hyposulphite of soda. Get this soda from a photographic supply house and you will find directions for use on the package. Wash the "hypo" from the face of the wood quickly and remove the moisture with damp chamois or blotter. Dry

quickly. This will give a brilliant print with no film to interfere with the gravers. The wood is not injured by chemicals, if you are careful to wet only the surface of the block.

✓Negatives for Planographic Printing.

THE photo-engraver being frequently called upon to make negatives for the lithographer, who may require them for photo-lithographic transfers for printing on stone or metal, for either direct printing or offset printing, is frequently puzzled as to whether the negatives should be reversed or not. W. J. Smith supplies the list following, which tells the lithographer's requirements :

Negatives for printing direct on stone or metal	Reversed.
Negatives for photolitho transfers and offset printing	Reversed.
Negatives for collotype transfers to stone or metal	Reversed.
Negatives for printing direct on metal and offset printing	Direct.
Negatives for printing on photolitho paper	Direct.
Negatives for positives to print on copper and etch intaglio	Direct.

Is advertising difficult ? It is, indeed. It would be easier to start a new religion on a successful career in the United States than to start a new brand of soap.

Organisation in Business.

IT is said that Mr. Carnegie, when asked what would happen if his mills should be destroyed by fire, or if he should suddenly lose all his material wealth, answered: "If I had my organisation intact I could regain it all in ten years." No doubt the remarkable success of this great steel manufacturer was partly due to his realisation that the physical assets of his business in buildings and machinery were not the only factors that contributed to the building up of his fortune, and that an important one was an organisation of men properly trained and willing to co-operate towards a common end. Many manufacturers look upon the machinery and the buildings as the main assets of their business, and prize but lightly the organisation that stands or should stand, behind the physical assets. A strong man may be able to manage successfully an organisation that is only loosely tied together; but as soon as he hands over the reins to someone without executive ability the whole organisation may go to pieces. Everyone who has observed the history of industrial concerns will have noticed examples of this. It is of the highest importance, therefore, to the permanency of any business that the organisation be such that it can continue in the absence of any one man and also such that the people who compose it are so closely tied to the organisation on account of the appreciation of its ideals and the things that it stands for, that they do not scatter when some breakdown occurs. We have known of cases of excellent organisations that were greatly

impaired because one of the principal managers left and took with him some of the best men, forming a new concern. In the majority of such cases a manager was able to do this because in the old business nothing had been done to bind those men to their employers, either by sympathy, co-operation, or otherwise.

Brains and Beans.

IN days gone by when man dwelt in cavernous abodes and caressed his enemy's seat of learning with clubs, the business methods of the day were crude like their social amenities. The question of bargaining was simplicity itself, the stronger took what he wanted from his less robust brethren. Financial considerations were not discussed to any extent.

To-day the man with the club is still with us with the same Greed sometimes called Bargaining or masquerading under the name Good Business and the weaker ones still submit, and for this reason—they fail to see the difference between merchandise (groceries, hardware, etc.), and Ideas. They believe that Brains and Beans are spelled alike. They are on a par with the corner grocer who has to sell his eggs to meet his competitor's price, and will be ground down to the lowest level if they "don't watch out."

He who has Ideas is unafraid and has not to perambulate the business world begging a handout. His work is sought wherever he lives or works. His product is his own, his prices what he asks and no one can take from him. Self Respect and Confidence are a wonderful combination and always winners.—J. E. COOLIDGE

✓ *Half-tone Printing on Bond Paper.*

THE texture of the screen of half-tone plates to print on bond paper should not be too fine, screen of from 110 to 133 lines to the inch printing best.

A good stiff ink finely ground should be used, and, if black, one that is toned with purplish blue. Cover inks also print well on bond paper. The average job ink is not viscous enough, but will generally answer if stiffened with either cover ink or No. 8 varnish. Sodium silicate may be used to stiffen black ink, but as it is alkaline it kills the lustre of the ink, causing it to appear flat.

An excessive squeeze is used in printing on bond paper. It is important in order to avoid squashing of the ink between the half-tone dots to have the rollers set light. A well-seasoned roller is required to properly distribute bond ink.

The mechanical chalk overlay and the zinc overlay give the best results in half-tone make-ready. The 12-point chalk overlay board is used for bond paper. The overlay is carried as close as possible to the drawsheet.

If hand-cut overlays are used they should be made stronger than for use on coated paper. After the impression has been levelled with tissue the several tones of the plate are taken care of with increasing thicknesses of onion-skin tissue or folio. Where the subject of a half-tone is well defined and surrounded by a sky or vignette, the entire subject should be overlaid with a sheet of—say 25×38—60 lb print paper.

When printing vignette half-tone plates, the overlays should start on a weak impression, which shows the edges of the vignette just printing. The centre of the plate will not be printing. In mark-

ing up such an impression for overlaying, the edges are missed by a nonpareil when making the outside tracing for patching. Successive, smaller tracing inside should be about equidistant at their edges. The nonpareil between the edge and the outside tracing should be skived chamfered or bevelled to the edge and the edge itself to the depth of a point or two—no more—cut away. This sort of an overlay will give the delicate fade-away effect. But if the edge is cut away to the depth of—say a nonpareil—the impression will be taken away from the inside of the edge and come back on the edge and cause it to print heavy, which is what we want to avoid.

When printing on bond paper or other hard, uncoated surfaces it is better to make ready on the paper to be printed. When making a bevelled overlay use heavy ledger stock. The edges are best bevelled with sandpaper.

When printing very heavy half-tone formes on bond paper, it is not necessary to slip-sheet the work if excessive squeeze is used and the colour carried light. If the cylinder press is fitted with a gas burner, it will not be necessary to slip-sheet at all, when inks are not superposed on each other.

If it is desired to print on one side of the sheet with no indentation showing on the reverse, it is only necessary to pull an impression on the paper used, cut the impression exactly to its edges from the sheet and securely paste this cut-out on the drawsheet in register with an impression thereon. This cut-out on the draw sheet acts as a male die does in embossing and effectually prevents the impression from showing on the reverse of the sheet.—*The American Pressman.*

A Few Definitions and a Moral.

For Process Engravers as well as Printers.

WHILE the following definitions may not exactly coincide with those given by the "Unabridged" or the "Encyclopedia," there is no doubt of their accuracy and truth.

THE SALESMAN : One who sells goods, not a mere order taker ; a producer of sales, not a hander-out of hot-air sales talks about our facilities ; a collector of customers, not a distributor of samples nor a walking advertisement ; one who practices selling.

SELLING : The act of causing another to desire your goods so much that he will part with something which he values to purchase them at a price that gives your house a profit ; the art of making sales.

SALE : The closing of an order for the goods that you have to sell, because you have caused the purchaser to desire them more ardently than he does those of your competitors ; an agreement for the transfer of ownership of certain goods for value—a value which contains a profit.

PROFIT : That which is left when the cost of manufacturing, the cost of selling, and the cost of being in business have been taken care of out of the price received. So long as one of these items is not fully provided for there can be no profit.

COST : The gross total of all the expenses incurred in producing, handling, and selling the goods from the receipt of the raw material—the manufacturing, the financing, and the final collection of the cash. Cost does not cease until the money for the goods is received and safely deposited in the bank.

COST FINDING : The art of collating and pro-rating the various items of the expense forming the cost to the various departments and operations, and finally to the individual job.

COST SYSTEM : A carefully planned sequence of records that provide for the easy collation of all items of expense, so that they may be properly pro-rated, and a definite routine for dividing these expenses over the productive, or saleable hours, so that each hour may carry its just proportion ; a set of principles governing the collation and division of costs to the various pieces of work or goods sold.

PRODUCTIVE HOUR : The hour actually used in producing saleable work that may be transferred to the customer for value in connection with the material necessary to complete the job. Because productive hours are the only ones bringing in real money, they must bear the cost so as to distribute it justly over the work done.

MATERIAL : Any product or substance purchased or acquired for the furtherance of the work, more particularly the things that form part of the finished product. All material purchased for a job is directly chargeable to it ; material purchased for general use is chargeable to the department or departments making use of it, or to the job for which it may be used later, in which latter case it is held as stock.

WASTE : Time or material that is purchased but does not appear as a charge against any job or department, or material that is used in some stage of the work but

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does not appear in the finished job. as the extra size of paper allowed for trimming in books and pamphlets, the extra ink used in washing up the press, or the extra sheets allowed for spoilage and over-sheets.

WISDOM: Thinking right and doing right at the right time. It is the part of wisdom for a printer to install a cost system at once, or see that the one he has is working correctly, and then remedy the errors and abuses of his manufacturing and selling departments according to its showing.

These definitions are arranged in a sequence rather than alphabetically in order to emphasize the value of studying them and of applying them to actual conditions. Just read them over again and see how much they suggest regarding your business and the way in which your costs are handled. Then act at once.

MORAL: It is because so many printers act as though they did not know these definitions that the printing business is such a troublesome one, instead of the pleasant one that its very nature seems to fit it to be. Some printers are so wrapped up in the idea of art printing that they do not see the business side, some are so possessed with the idea of volume of business that they cut out almost all the profit in order to get it, and many are so careless of their cost keeping that they do not know the right price. However, a few are wise, having learned the definitions, installed the cost system, and fixed fair prices. These are the wise men who get both pleasure and profit out of the printing business. Unfortunately there are not enough of them, but the number is increasing. — From "The Printing Art."

✓ *Half-Tones on Sandpaper.*

THAT bright little monthly, "The Commercial Artist," deals in its latest issue with this question of half-tones for the offset press, and shows that it has unbounded faith in the future of both half-tone and offset. It says: "Lately much progress has been made in the art of offset lithographing along the line of reproducing half-tones. With the old style process it was impossible successfully to reproduce a half-tone; but now a transfer can be made from a half-tone on to the zinc plate, and the result is a finished product that far excels printing."

The editor of "The Commercial Artist" however, believes in doing things thoroughly, and when he has made a statement such as the foregoing, he proceeds to vindicate the claims he has made.

To do this most effectually he has inserted in the April issue a half-tone portrait of Theodore Roosevelt, "a man of grit," printed on sandpaper by the offset press. It must not be supposed that this sandpaper is some specially smooth kind made particularly for the purpose; it is not, but is just the ordinary kind of sandpaper such as a cabinet maker would use for his coarsest class of work, and would speedily take the skin off your finger if drawn across it. •

It is a remarkably good piece of work, and our only regret is that we cannot show a specimen of the work in our pages.

Here is another development of the useful half-tone process block. Can there be any doubt that in future years they will be far more extensively used in offset work than they are at present?

✓ *The Saving of Residues.*

EVERY photographer should save his residues, as it is possible, if any considerable amount of work is done, to obtain quite a decent sum in the course of a year. Particularly is this the case when amateur finishing is part of the business.

Every piece of waste paper and film should be preserved. I have in my dark-room an empty hypo keg, and into this is thrown every bit of waste and spoilt film negative, and I find that my amateur customers are quite willing in uine cases out of ten to leave their spoilt films behind. When the keg gets full the contents are jammed down with a stick till it is no longer possible to put more in, and then the keg is taken out into the backyard and the contents dumped into a home-made combustion chamber. This was made out of corrugated iron with a stout sheet iron bottom and another sheet for a lid.

At one side near the bottom is cut a small door, which allows me to fire the mass, and I take good care to collect a few films and place just inside this door. The waste is not tightly packed, merely lightly dumped in the lid put on, and then a match applied to the films. These burn fairly rapidly and soon set fire to the lot, and it is allowed to burn itself out, with an occasional stir with a poker. The ashes are not disturbed till possibly the next day, when everything has cooled down. They are then carefully collected and packed tightly into an empty wooden plate case, which is kept till full.

Naturally the chief source of residues is the fixing bath, whether for plates or paper, though the latter has much less silver in it than the former. To collect

the residues, an empty oil barrel is used with the head knocked out, and this has its permanent place in the yard. When a fixing bath gets too dirty it is poured into a pitcher and emptied into the barrel and no attempt is made to precipitate the silver till the barrel is half full.

There are several methods of throwing down the silver, and the one I prefer is scrap zinc. Liver of sulphur is not quite so cleanly, nor as economical really, because with zinc one obtains metallic silver, whereas, with liver silver sulphide is thrown down.

I buy the cheap variety of liver, as it is just as good for this purpose as the purer kind which is double the price. A wide-mouthed bottle is used. As a matter of fact I obtained from a nearby soda fountain some quart fruit-jars with glass lids, and the liver is turned into these, a pound to the bottle, and then filled up with warm water and the whole left with an occasional stir till the lumps dissolve. The strength of the solution is of no moment, only the less water used the less there is to get rid of later. These bottles are kept out in the yard also, as liver is not nice stuff to have in the dark-room. If sulphide toning is resorted to, then the used sulphide solution is also dumped into the barrel.

When I want to throw down the silver, about a pint of the strong liver solution is stirred into the bariel and the whole left till the next day when it will generally be found that the upper portion of the liquid will be clear and more or less white. A little is then dipped out with a teacup and a drop or two of strong liver solution dropped into it. If the solution remains clear on stirring, then I know that all the

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silver is down ; but if there is any sign of a precipitate more liver solution is added, the whole well stirred up, and the barrel left till the next day and a further test made.

As soon as all the silver is proved to be thrown down the barrel is allowed to stand, without being disturbed, for two or three days or a week, and then the clear solution baled out with a tin dipper and thrown down the drain. This naturally makes room for more fixing-bath, and thus it really takes quite a while to get the barrel full. Actually I have two barrels in use.

The silver, which is precipitated as sulphide, is then scooped out as a thick liquid and put into cheap enamelled-iron pans and placed in the cellar till most of the water has evaporated. In the winter this is easy, as the pans are put on the top of the furnace and left there till quite dry, then the sulphide is broken out and packed up with the ashes of the papers and films and sent off to the refiners.

Formerly I used old barrels, and when they are full of the silver sludge I bung up the hole tight and send off to the refiners, but I found the freight charges were too heavy and so I determined not to send more water than was actually necessary. There is just one point, and that is, in declaring the contents to the railway company, make sure to say that it is silver residues ; if you do not and any loss is sustained you cannot get compensation.

All this may seem a lot of trouble, but the actual work is very little and can be done in any odd moment, and if you are doing anything like a decent business the monetary return will make quite a nice showing. At any rate, mine last year ran well up into three figures.—“The Photographic Journal.”

✓ *The Mixing of Inks.*

THE most satisfactory ink slab is a piece of heavy French plate glass which no ink can penetrate. When mixing colours to be printed on white paper, lay a piece of glossy white paper or cardboard beneath the glass ink slab, as this helps one to get the correct colour. Should you wish to print on coloured stock, withdraw the sheet of white paper from beneath slab and in its place put coloured stock.

Always mix a very small trial batch of ink. Start with white, or whatever the lightest colour in the mixture may be, and add the other colours sparingly.

Coloured ink in a mass on the slab or in the can appears a shade deeper than when distributed on the press.

Freshly printed impressions are brighter than dry ones, so always allow for a slight fading in coloured inks when they have had time to dry.

Never use any reducer, varnish, or drier except when necessary, because varnishes are not colourless and slightly affect the colour of light inks. When varnish is added, either for glossing, reducing, or drying, remember that a little varnish goes a long way. The object is to keep the colours as pure as possible.

In matching colours it is not necessary to ink up the press after mixing a small trial batch. Instead, distribute a bit of the ink on a brayer roller or a roller from a small platen press and roll the inked roller over stock to be used. If the film of ink is thin, as it should be, you can easily tell whether you have secured a match.—“The British Printer.”

✓ *The Psychology of Colour.*

Written for “*The Commercial Artist*” by Prof. Warner Brown, University of California.

A GREAT deal of nonsense has been written about the psychology of colour in connection with advertising. It is true that certain tones of red and violet are irritating to most people and on the other hand that it is relatively easy to find a tone of green or blue which is restful or pleasing. But these remarks apply only to certain tones ; there are pleasing reds and very irritating greens and blues. As for the mixtures of colours there is no psychological theory at all, and statements which purport to be psychological are frequently the result of a sad ignorance of both psychology and physics. Thus we are often told that green possesses certain mythical qualities because it is a mixture of blue and yellow. But while blue and yellow paints or inks may unite to produce a green paint or ink, everyone knows, who has studied physics at all, that a blue light and a yellow light both falling on the eye at once do not produce a green impression, but neutralise each other. As a matter of fact, blue and yellow lights do not have the mythical properties assigned to them and their mixture instead of having the mythical properties of green is white.

Colours do have certain associations which can be made use of in advertising. I have heard it argued that red should not be used in advertising or for containers of food products. That may be true in spite of its great popularity for such uses. Heavy colours are inappropriate for advertising milk. Browns are appropriate for tobacco or coffee. In this sense the finer points of colour deserve very careful

study in individual cases, but it is not true that any general rules can be laid down for which the psychology of colour can be held responsible.

Colour is used primarily to increase the pleasingness, richness, variety and truthfulness of the picture. In this sense the rules for the use of colour in advertising are no different from the rules to be observed in all painting. The only exception which can be taken to this remark is on the score of expense. Inasmuch as advertising is not pure, but commercial art, it behoves the commercial artists to make a special study of the effects which can be produced by the use of only one or two or three colours, in the interest of economy.

Colour is also used to attract attention through contrast with black and white or with other colours used by advertisement in the same medium. In magazines the choice of colours for this purpose makes no difference whatever, as any colour will have sufficient contrast value to produce the desired effect. But in the street cars and for posters the choice of colours is important. It is necessary to make a study of the prevailing mode and choose a colour or combination of colours which is as different as possible from those most commonly used. There is a strong temptation to follow the fashion and make one's work harmonize with that around it. But so long as colour is used to make the advertisement stand out from the rest of its competitors it is wise to select an unpopular colour for the sake of greater legibility and attention value.—From the “*Commercial Artist*.”

Long Exposures and Slow Development.

THE tendency of the day is to shorten or expedite processes, hence we have frequent insistence on the merits of extra rapid plates, quick shutters, and chemically superactive developers. A long and carefully worked out plea for the other aspect of things takes the form of an article in "Le Photogramme," the keynote of which is the fuller and richer play of tone that results from slower actions on the film, whether action of light or chemical action. It is urged that the highest pictorial work, with full gradation in the middle values, bounded by full shades and brilliant whites can seldom or never be realised by a sudden reduction of the silver. Thanks, however, to the wide power of adjustment and control which is possible in the case of alkaline developer, there is no necessity to depend on that sudden action, which is too often merely a surface action. Whether pyro really allows of a wider freedom in matters of exposure than other developing agents is a moot point, but it is easy to so make up pyrogallic developer as to make a wide control remarkably convenient in practice. The following stock solutions are recommended when a wide range of control is desired.

A

Pyro	5 gm.
Sodium sulphite (anhydrous)	50 gm.
Water	250 c.c.

B

Sodium carbonate (anhydrous)	50 gm.
Water	500 c.c.

C

Potassium bromide	10 gm.
Water	100 c.c.

For rather long exposures and rather soft effects, use 30 c.c. of A, 20 c.c. of B, 1.5 c.c. of C, and 20 c.c. of water. If a somewhat slower development is aimed at, with full vigor and complete range of intermediate tone, use 40 c.c. of A, 15 c.c. of B, 2 c.c. of C, and 20 c.c. of water. When an extra long exposure has been given—say, five or six times the normal—C may be increased, even up to 10 c.c. If, on the other hand, the exposure has been twenty or thirty times the normal exposure, a first-class negative may be obtained by soaking the plate in C before the action of the solution, C being allowed to continue from a few seconds to four minutes before it is replaced by the developer. When an unknown exposure has been given, and the extent of this cannot be judged from trials with companion plates, one way is to cut a strip from the margin of the plate and make preliminary trials. With pyrogallic acid and the kind of controlled development here suggested, it is possible to obtain satisfactory negatives when the exposure has ranged from normal to thirty times, or more. As a countervailing disadvantage of pyrogallic acid we have the tendency to stain, especially when the development is unduly prolonged.—"American Photography."

It irritates me when a man says he does not believe in advertising, because all the time he is eating advertised goods, smoking advertised tobacco or cigarettes, drinking advertised — mineral waters. And yet he doesn't believe in advertising. —"American Impressions."



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

Glorious Limpsfield.

A Visit to the Convalescent Home for Process Workers.

IT is not often that a great scheme can be outlined, brought into being, and set in complete working order in the space of about six months, yet that is the proud achievement of the promoters of the War Memorial to those who have fallen in the process trade; we said promoters, but the honour belongs to our President, for it was he who introduced the subject and worked for it, and secured such agreement with the scheme that success was assured almost from the commencement.

At the invitation of the Committee the President and Editor of this Journal were guests of a popular function at the Caxton Home recently, viz., that of naming a bed, which involves the subscribing or raising of £100 by those on whose behalf the bed is named, and as so many of the beds have already a very neat tablet attached thereto indicating by whom they were endowed, any of our readers who may feel inclined to assist in so beautiful a piece of work should hurry up ere all the beds are named and they, for the present, lose the opportunity of expressing their sympathy in so practical a way.

The occasion of our visit was the naming of a bed by the South London Caxton Musical Society. All honour to this Society,

which has done so much for the Home, for the members have already been the means of raising sufficient funds to endow six beds—a great achievement in a worthy cause.

Yet this is not the full measure of the work they have done for the Caxton Home, for they have, during a period of something like 25 years, spent their leisure time in preparing for and giving concerts at various places in order to raise all the money they possibly could for the benefit of the home, and so successful have they been that they have handed over nearly £4,000 to the Committee to be used in the best interests of the home.

Everyone connected with the institution is looking forward to the coming great festival, viz., that of laying the foundation stone of the new wing early in September, and it is hoped that as many process engravers as possible will be present to take part in such an important function, for it is almost impossible to conceive of any more worthy memorial to those of our comrades who have been called upon to make the supreme sacrifice on behalf of those of us who are left behind.

The situation of the Home on the beautiful Kentish downs and surrounded by some of the most charming scenery in the

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country, makes it one of the most beautiful and restful sanatoria possible, and it is no stretch of the imagination to say that no place within easy distance of London can compare with the charm of the views—whether North, South, East or West—that are to be obtained from the cosy rooms of the Caxton Convalescent Home.

From the windows of the Smoke Room in the Tower, there is an uninterrupted view over the beautifully wooded landscape, where for seventy miles in each direction the eye can feast upon the glories of hill and dale, wood and pasture, while the tilled fields and growing corn around not only tell of the labour of man but give promise of an abundant harvest, the free gift of the Giver of all good things.

Those endowed with the gift of good eyesight, and possibly some imagination, assure us that they can see the sea from this Smoke Room, be that as it may, it is no romance to say that in our judgment it is practically impossible to find a site more beautiful, more health-giving, more suitable for the purpose for which the home is intended, than is that chosen at Limsfield for the benefit of the men and women who unfortunately get broken in the stress and strain of the everyday life of those whose days are given up to the production of pictorial and reading matter from which the public gain so much enjoyment.

That the afternoon's trip was a thoroughly enjoyable one goes without saying and we cannot do our readers a greater service than to recommend them to take an early opportunity of spending a whole day, if possible, in making their acquaintance with so splendid an institution. It will be one of the most healthful and beautiful picnics they can enjoy, and if they are

lucky enough to get the President of our Federation as their guide, philosopher, and friend for the occasion, they may look for double enjoyment.

In our May number we appealed to the process trade to make up the subscription list to £1,500, at present we are about £250 below that amount. If those who have not yet given or promised will give this hint their attention and promptly write to the Secretary of the Federation saying how much they will be responsible for toward this £250, the grand total may be announced at the time of the stone laying, of which due announcement will be made in our next issue.

How to Find f Values.

ROUGHLY, the f number of the stop may be found by measuring its diameter and dividing this number into the focus. Precisely, it may be ascertained in the following manner, prescribed by the Royal Photographic Society: The lens is focused on an infinitely distant object, the ground glass removed, and an opaque screen pierced with a pinhole in the axis of the lens is substituted. An illuminant is placed close to the pinhole and the diameter of the beam of light measured where it leaves the surface of the front lens. This diameter is the measure of the effective aperture.

The equivalent focal length is found well enough for practical purposes by focussing on infinity and measuring from the diaphragm to the surface of the plate or film. Divide this measurement by the diameter of the beam of light and the answer is the f number of the stop.

Will Prices Drop?

Reasons why the new price level may be maintained permanently.

Extracts from an address by Irving Fisher (Professor of Political Economy, Yale University).

THE main reason why business is not going ahead better is that most people expect prices to drop. The merchant is selling, but not buying. The manufacturer holds up the purchase of his raw materials. People quote the disparity between present prices and those prevailing "before the war," and decide they will not buy much until present prices get down to "normal." This general conviction that prices are sure to drop is putting a brake upon the entire machinery of production and distribution. Readjustment waits because we keep on waiting for it. We have waited in vain for several months. It is interesting to observe that many manufacturers think that prices must come down, including the price of labour; but they are ready to demonstrate to you that their own prices can not come down, nor can they pay lower wages. Almost everything they buy somehow costs twice as much as before the war, and their labour is twice as dear. They can not pay their labour less if labour is to meet the increased cost of living. Now, as a matter of fact, when we investigate almost any individual one of the so-called high prices for industrial products we are likely to find that individually it is not high; that is, it is not high relatively to the rest. Our quarrel is with the general level of prices.

Variations in the general price level may be compared to the tides of the sea, while individual prices may be compared to waves. Individual prices may vary from this general level of prices for speci-

fic reasons peculiar to individual industries just as the height and depth of waves vary from the general level established by the tide. The causes controlling the general price level are as distinct from those controlling individual prices as the causes controlling the tides are distinct from those controlling individual waves.

All prices have risen, but some have risen more, some less, than the average, for particular reasons affecting each industry. In some cases an improved organisation of both employers and employees has enabled them to combine against the public and take full advantage of the price advance. The war brought about an abnormal demand for certain products like copper and steel, and they advanced faster than the average. The abnormal demand having disappeared, these prices are being adjusted downward. Wheat is a case where demand increased and at the same time certain of the usual sources of supply—Russia, Australia and Argentina—disappeared, with a resultant abnormal price increase. The closed sources of supply have opened again, and wheat prices in the world market have dropped. In some cases, as in many of the industries making building materials, the war meant a great slackening in demand, an enforced curtailment in use by Government order. In such instances we are likely to see an upward swing in prices as the suppressed demand again makes itself felt. To-day we are witnessing throughout the country such price readjustments, up and down, but the

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general price level has shown little sign of falling, as is evidenced by price index numbers. It is apparent to every thoughtful observer that some great force has affected all prices, creating a new standard to which they are all conforming.

The fundamental practical question confronting business men is whether the general level of prices is going to fall. In my opinion it is not going to fall much, if at all. We are on a permanently higher price level, and the sooner the business men of the country take this view and adjust themselves to it the sooner will they save themselves and the nation from the misfortune which will come if we persist in our present false hope.

The general level of prices is dependent upon the volume and rapidity of turnover of the circulating medium in relation to the business to be transacted thereby. If the number of dollars circulated by cash and by check doubles while the number of goods and services exchanged thereby remains constant, prices will about double.

The great price changes in history have come about in just this manner. The "price revolution" of the sixteenth century came upon Europe as a result of the great influx of gold and silver from the mines of the New World. Europe was flooded with new money. More counters were used than before in effecting exchanges and prices became "high." People talked then of temporary "inflation," just as they talk of it now. But it was not temporary; it was a new price level.

A similar increase in prices all over the world occurred between 1896 and 1914, followed by the discovery of the rich gold fields in South Africa, Cripple Creek and Alaska, the invention of the cyanide process in mining, and the vast extension of the use of bank credit.

Many people, referring to this inflation in the circulating medium, and assuming that it is temporary, are waiting for this inflation to subside. When we speak of inflation we mean more circulating medium than is needed to transact the business of the country on a given price level. But what price level? Some people mean the price level of 1913-14. Our currency is certainly inflated in terms of the prices of that period, just as the currency in 1914 was inflated with respect to the prices of 1896, but our currency is not inflated at the present time relative to the new level of prices in the world which the war has brought. The country's volume of money will have to be judged in terms of this new price level, not in terms of a price level that is past. To speak of the present "inflation" as temporary is to assume that the normal prices are those of 1914.

RESISTING FALLING PRICES.

Against any considerable reduction in bank credit and hence in the general level of prices, we shall find the whole business community in arms. Falling prices mean hard times for the individual and for the nation and every one resists the tendency. At the end of the Civil War the Treasury started to reduce the quantity of greenbacks. A start had hardly been made, however, before the business depression of 1866 and 1867 caused Congress to forbid by law any further reduction. Should the Federal reserve banks attempt, by raising their discount rate or otherwise, to reduce the volume of bank credit outstanding, they will meet with the same sort of opposition. Moreover, the hostile attitude of labour toward the lowering of wages will deter legislators and bankers from any organized policy of contraction.

Looking into the still more remote future, there will be in Europe, particularly on the Continent, a vast increase in deposit banking. The need of the Governments there for funds during war times hastened the introduction of deposit banking. Money went out of circulation into bank vaults, and there became the basis for circulating credits. This means a new habit which will lead to a great currency expansion. The world, during the course of the war, has thus started, or has hastened, an equivalent of the price revolution of the sixteenth century.

GO AHEAD ON THE NEW PRICE LEVEL.

Business men should face the facts. To talk reverently of 1913-14 prices is to speak a dead language to-day. The buyers of the country, since the armistice, have made an unexampled attack upon prices through their waiting attitude, and yet price recessions have been insignificant. The reason is that we are on a new high-price level, which will be found a stubborn reality. Business men are going to find out that the clever man is not the man who waits, but the one who finds out the new price facts and acts accordingly.

Tell the Story.

Written for "The Commercial Artist,"
by Prof. Warner Brown, University of
California.

STORY telling is a great art, and the oldest of all the arts. Before men learned to write or draw the art of story telling was well developed. But it

has never been perfected, and therein lies the proof of its greatness. There are stories older than the pyramids of Egypt which are being circulated and improved upon to-day by artist story tellers who still polish off old crudities or add new embellishments.

A picture can tell a story too. And it has this advantage, that it tells its story very quickly and tells its story to the greatest audience in the world. For while the number of those who read a story in print is far larger than the number of those who can stop to hear it told, there are still a great many more who see a story in a picture while they will not take the trouble to read it in print. I have never seen a person open a new magazine who did not look first of all at a picture. Moreover, the artist who tells his story with a picture commands size and isolation, and perhaps, most wonderful of all, colour; and commands these forces in a manner not to be realised by the mere printer of type.

The American drummer (speaking in the honest American tongue) is unalterably associated with story telling. That is really "commercial art." Telling a story, not crudely, but in just the right place and at just the right time, is of the very essence of selling.

The modern advertisement replaces the hand and mouth methods of distribution of former days by quantity methods. But it has the same duties, and among those duties is that of telling the story which ought to go with the sale. The purpose of the picture in an advertisement is not merely to catch the attention of the reader, it is never to illustrate the text. Its purpose is to tell the story, more briefly, more pointedly, and to more people than it can be told in any other way.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4

Vice-President—

MR. D. GREENHILL,
The Sun Engraving Co., Ltd.,
Milford Lane, London, W.C. 2.

Treasurer—

MR. EDWARD W. HUNTER,
The Sun Engraving Co., Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.
Telephone: 5596 Bank.
Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

THE work of the past month has been greatly interfered with by the various Holidays, yet the attendance at the Council Meetings has been fully up to the average.

Nothing of very great moment has been before the Council excepting the outstanding question of an increase in the wages of the employees. This question which at one time looked like presenting extreme difficulty, worked out its own salvation, and long before our readers see this the members of the Federation will be in possession of the resolutions of the Council giving full particulars *re* the increased remuneration to be paid.

In practically every trade where wages increases have been granted to the workers the increased cost has of necessity been passed on to the consumer. This has been the case in the process trade, until the prices of process blocks have been forced up to such an extent as to become a great difficulty to publishers who use them freely in their various publications.

The Council, realising this position and knowing how seriously it was interfering with the volume of business passing through the process houses, felt very strongly that any further increase simply spelled disaster.

Moreover, there is a feeling abroad that the leaders of the Men's Society do not fully realise how near to breaking point prices have reached, and as they are so vitally interested in the extension of the trade it behoves them to give this point

their very serious consideration in the near future ; otherwise, should further demands be made and insisted upon it will simply mean that a great number of employees will be thrown out of work, so that the position will then be worse than at present.

The Council, having to review the position set up by the further increase of five shillings per week to the workers, had to decide whether that extra cost should be passed on to the public or whether the Federation members must shoulder the burden themselves, and as they are all practical men they realised the extreme gravity of the decisions they were called upon to make.

There can be no doubt that the simplest plan was to pass the additional cost on to the public and accept whatever consequences resulted therefrom, and this was considered by many to be the only plan by which recoupment could be secured.

Others, however, gave a different turn to the thought by shewing that with the willing co-operation of the men, and by minor retrenchment in various ways, together with the gradual reduction in the prices of materials that might be looked for, it might be possible to meet some of the extra costs out of savings effected thereby.

Moreover, if by relying upon the willing co-operation of the employees they made up as much of the extra five shillings as possible by increased production a matter that would not be at all difficult then there would not be any need to pass on the extra cost.

After mature consideration the Council decided to embark upon the more heroic course and to put the risk upon the shoulders of the members of the Federation believing that by so doing they were

serving the best interests of the trade.

It is therefore to the interest of the employing process engraver to get into such harmonious relation with his staff as will ensure their hearty co-operation in every measure necessary to prevent waste and improve production. If they succeed in these respects the course adopted by the Council will be fully justified.

Two matters that might possibly lead to serious difficulty to individual houses at some time or other were brought before the Council. Neither of them of seemingly great importance at the moment, yet in both cases lie great possibilities that, under given conditions, might recoil upon a process house very severely.

In the first case a complaint was laid against a house respecting an estimate they had given. That such estimate had been given there could be no doubt at all. for a member of the Council copied it *verbatim* and laid it before the Council, but when the house in question was called upon to account for such estimate they confessed that they could not find any trace of it notwithstanding that the name and address of the house to whom it was sent was given them and the date upon which it was written.

It seems almost an impossibility that a house of any standing could keep its records in such a manner that it is quite impossible to trace an estimate when it is required within a few weeks of its being given. Such however, was the reply of the house and though the correspondence was maintained for several weeks they still assured the Council that though they had made every possible search they could not find any trace of it though they fully admitted that the evidence proved that such an estimate must have been given. but as no trace of it could be found they

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were unable to fix the responsibility upon any given individual. They, however, apologised, and promised to take every care for the future, and would do all in their power to put matters right with the house in question.

The other case was one in which questions of correct charges had arisen, and when the Secretary called to examine the books and vouchers of the member it was found to be almost impossible to decide which vouchers and proofs related to any given entry in the day book, and it was only with very great difficulty that any comparison could be made.

Seeing that occurrences such as these may be fraught with such serious consequences to any house against whom a false charge might be made, it behoves every house in the trade to keep all its records of every kind in such perfect condition that the necessary references may be made and verified in the simplest possible manner. A hint to the wise should be more than sufficient.

Complaints were made that the country members had not been supplied with a list of those printers who are members of the London Master Printers' Federation, and who are entitled to the further 2½% for prompt payment of their accounts.

As the London Master Printers' Federation could not supply more copies of the list, it was arranged that the Printers' Federation would send out to each of its members a copy of the complete list of the Process Engravers' Federation members, with an instruction that they were to deal only with houses named on that list. It is hoped that by this means country process engravers who secure a certain amount of work from London will find themselves upon equal footing as their London brothers.

Rationing has now taken its departure after nearly three years of arduous and very difficult work. The Metals Committee have completed their task, and the last warrant has been issued. Henceforth the process engraver will buy in the open market just as he did in pre-war days, the only difference being that he has to pay considerably more now than he did then.

The Committee, before it relinquished the work, felt it to be its duty to safeguard the interests of the trade, consequently sought an interview with the supply houses and discussed with them the future prospects of supply and distribution.

The supply houses have undertaken to procure sufficient metals for the purposes of the trade, and to distribute it in such way that no house shall be able to procure large supplies at the expense of the smaller houses. In this promise the members of the Federation have a safeguard that will ensure them proper supplies as they may be required from time to time.

Of course, it will be incumbent upon every house to look well ahead and place their orders in good time, so as to receive the deliveries as they are needed, otherwise they may not be able to procure all they need from stock, the prices of the metals to-day being so great that supply houses cannot afford to carry heavy stocks without greatly increasing the capital at their disposal, merely for the benefit of those process engravers who will not look ahead—this they are hardly likely to do.

Further correspondence has been carried on with the Post-Card Publishers' Association, who, like other associations who have approached the Council, have asked for special preferential rates for their members.

It seems strange that such Associations should make these requests, for there cannot be any reason why one class of customer should have preferential rates granted them. Moreover, do these associations suppose that there are such large profits in process that there are margins sufficient to permit of reductions being made that would have much effect upon their costs. If so, they are grievously mistaken, for the prices are so arranged that if all these requests had been granted to the extent expected by those making the applications, the process engraver would be in even worse plight than he was in pre-war days. The Committee had to inform the Secretary of the Post-Card Publishers' Association that there were no prospects of any further reductions being made in the immediate future.

Another matter of interest to the trade is having the attention of the Council. That is the allowance made to process engravers for depreciation of plant by the Income Tax Authorities.

Experience has shewn that process plant must be depreciated at the rate of 10% per annum if it is to be completely written off by the time it is absolutely worn out.

Yet the Income Tax surveyors persistently refuse to allow this 10% depreciation, and make allowances varying from 5% to 7½% only.

The Council has determined to make an effort to get an agreed 10% allowance for the whole of the trade, and we hope to record in future issues the result of the effort. Information on the matter will be welcomed by the Secretary from anyone who has had exceptional experiences in the matter.

Correspondence has been passing between the Council and the Government

Department concerned, *re* the re-employment of apprentices whose course of training was broken by their being called to the war.

The Government realise that many of these young men have a very strong claim to consideration, seeing that when they were called upon to join the Army they had been but partly trained, and probably having forgotten much that they had learned, and being entirely out of practice, cannot return to business as fully qualified journeymen, yet, on account of family liabilities taken upon themselves during the past four or five years, are in need of a full journeyman's pay, or something nearly approaching thereto.

In order to meet such cases a scheme of part support has been brought into being, by which these apprentices upon returning to their former employers are to be paid a definite proportion of a full journeyman's wage by the employer, who is to be reimbursed a given percentage of the same by the Government.

Every employer who is receiving back his old apprentices is eligible to come under the scheme so far as it applies to his particular case.

We understand the scheme to be divided into two parts, that is (1) for apprentices under 19 years of age ; and (2) for those over 19 years of age.

Like all Government forms, that under consideration looks very formidable and requires careful consideration ; but if those employers who are interested will give the matter an hour or two's study, they will find out in what way the particular case under consideration will be benefitted by coming under the scheme, for undoubtedly there is some benefit to be secured, though it may not be great.

An Appreciation.

IT is not always that folk who have a very lively sense of gratitude for favours received remember to give expression to their feelings. We do not suggest that this fact in any way lessens their gratitude, still it does not let the other fellow know what they feel toward him.

The Metal Committee, who have had such an arduous task during the last year or two and who have met with not a little criticism from time to time, know that the great majority of the trade appreciate the work they have done. There have been stray passages that have assured them that they have not been entirely forgotten.

It was, however, reserved for one house in the Federation to gracefully put on record its appreciation of the work done, now that the work of the Committee had come to an end, and an intimation to that effect had been sent out to every member of the Federation, the Committee was disbanded, and there the matter ended.

The GROUT Engraving Co., Ltd., however, felt that something more was due to the members of the Committee. They therefore wrote as follows:

MR. G. B. MANLEY,

Clarence House,

Martins Lane, E.C.

DEAR MR. MANLEY,

We duly received your letter informing us that in future it will not be necessary for us to get permits for metal.

We are writing to ask you to be good enough to convey to the Metal Committee the very best thanks of this firm for the

very painstaking and equitable way in which they have carried through their very difficult and arduous work. As a firm, we felt we could not let the Committee be dissolved without placing upon record our great appreciation of what they have done for the trade through the critical months of the great war.

Yours truly,

THE GROUT ENGRAVING CO., LTD.

ALFRED GROUT,

Director.

It is needless to say that the Committee felt highly honoured by the kindly thoughtfulness of the Directors of the GROUT Company, and very greatly appreciated the word of confidence.

Ideas for Printers.

WITH the increased cost of living one printer found it necessary to dispense with artists tonsorial, and, instead, adopted the safety razor way. Now, after the safety razor blades become too dull for his beard, the printer finds them still useful for many other purposes such as press makeready knives; cutting out mats for pictures "lifted" from printers' journals; manicuring his fingers; great as a paper cutter for finishing the job when the machine's knife doesn't cut all of the stock; fine as ink erasers; just the thing for sharpening pencils; very efficient as a cigar cutter (when he has any) and for paring corns, the printer claims, the safety blades have no equal.

✓ *Lightning Work in a Process Department.*

THE proprietors of the "Evening News" have reason to be proud of the expedition shewn by the workers in the Process Department of their publishing house, for they have recently made an effort which shews that all records are not intended to refer to the pre-war period only.

Notwithstanding the difficulties that surround the trade at the present time, here is proof that the men in the workshops to-day can successfully compete with those we knew of four or five years ago. Moreover, it shews that it needs only a given amount of good will and enthusiasm in order to do successful work in record time.

The following is cut from the pages of the "Evening News" of a recent date: "Despite the congested roads, a photograph of the finish of the Derby, showing the first three horses, was in Carmelite House by 4.50 p.m., and the picture was printed in the front page of the London "Evening News" sold in the streets by 5.30 p.m."

To ensure prints from a process block to be on sale in the public streets within forty minutes of the receipt of the photograph is surely a triumph of organisation and the publishers are to be congratulated thereon.

Whilst we have great pleasure in recording such a success we must warn our readers against jumping to the hasty conclusion that what has been done under the highest organisation and irrespective of expense can be matched in the ordinary way of business in a trade house.

It has been our misfortune to hear

purchasers of process blocks refer to some such feat as that recorded above, and argue therefrom that if a newspaper house can do such things then surely a trade house can do as well. We wonder what amount of blank astonishment would be depicted upon their countenance when the process engraver, who essayed to meet such a demand, presented them with the accounts? Yes, it is quite true that what has been done can be done, given same conditions, and if customers are prepared to foot the bill for rush work they can be accommodated, but they must not squirm when a bill out of all proportion to the Federation scale is presented to them.

Every process engraver knows that rush work entails from three to six times the cost of work passing through the ordinary routine, whilst evening work entails still higher costs. If customers cannot organise their work so as to ensure it passing through the house during ordinary business hours, they must of necessity be prepared to meet these extra costs.

THE PROCESS MAN'S CREED.

I BELIEVE in the Process Engravers' Federation, not for what I can get out of it, but for what I can put into it.

I believe in the rules governing the production and sale of art work, not because they will put cash in my pocket, but because they will protect my unbusiness-like brother from abuses to which he has been subjected in the past.

I believe in extending the right hand of fellowship to new comers and the hand of guidance to beginners.

I believe in conducting my business like a business man and upholding the dignity of my profession at all times.

—With apologies to REED WILLIAMS.

The Whitley Council for the Printing Trade.

THE formation of a JOINT INDUSTRIAL COUNCIL for the printing trade marks a very important step in the path of progress for a trade that has so much of possibility within its grasp.

Unfortunately the printing trade for many years found itself very much in line with the process trade of old time. The printer who made a competency out of his business was something of a rarity, but the worst feature of the trade as a whole was the almost impossible task of getting printers to join in association with each other so that they might devise means for mutual self protection.

Probably this might be accounted for by the fact that there were so many thousands of small shops throughout the country, it was therefore very difficult to get them together to discuss matters, and even when those in any district could be called into council local rivalries and sometimes jealousies came in and made joint action an impossibility.

Then there was the difficult task of reconciling the interests of the smaller houses with those of the larger houses and *vice versa*. All these difficulties had to be met and conquered before it was possible to establish a joint industrial council for the trade.

The Federation of Master Printers, however, worked at the task month after month and year after year, each year showing an advance upon its predecessor, until at last the time seemed ripe for launching the scheme, so taking courage from the fact that the outlook seemed favourable, they decided to put the matter before the trade, and secured such an amount of support that it was felt the moment had come to take the important

step and bring the Council into being.

This was accomplished, and after preliminaries had been arranged the first meeting of the Printing and Allied Trades Joint Industrial Council was held at the Holborn Restaurant on Tuesday, July 1st, and so for good or ill the whole trade is committed to give the scheme a fair and impartial trial, and we very heartily wish them every success.

There are twenty-nine members representing the employers' associations, and twenty-nine representing the employees' associations, each representative being an authority in the department with which they are concerned.

The meeting was opened by Mr. G. J. Wardle, M.P., Parliamentary Secretary to the Ministry of Labour, and at once proceeded to elect the officers for the first year's work. Mr. A. F. Blades was appointed the first Chairman, and Mr. C. W. Bowerman, M.P., was first Vice-Chairman.

Mr. Wardle, in his address, proposed "Success to the Industrial Council of the Printing and Allied Trades." He was quite sure that all who were gathered there realised that it was no use his proposing success to the Industrial Council, which they had formed that morning, unless those who formed the Council were determined themselves to make it a success. Good wishes would not bring success, but hard work, a tolerant disposition, a capacity to see that there were always two sides to a question (hear, hear), and sometimes a good many more. The success of industrial councils and of that particular Council depended first of all upon themselves, and when success was achieved it would be one of those influences for

good spreading far beyond their own order and affecting not alone their own trade. There were some 300,000 or 500,000 people directly dependent for their livelihood upon that particular trade, and therefore he wished the Industrial Council might suggest things that would be of advantage to the trade.

THE FIRST PRESIDENT.

Mr. Alfred Blades, who was received with cheers on rising to respond to the toast as President of the first Industrial Council, expressed the hope that the National Wage Basis scheme would consolidate the trade. They would all agree that was a perfect scheme, though it was not yet an accomplished fact. They had, however, to call upon both sides to exercise diplomacy, generosity and clear-headedness in order to bring about the result they desired. They desired all to work together, and if some of them had to pay a bit more than others, well, he thought they should sink their individual mercenary ideas within the limits of making a profit. If they could only get the two agreed principles mentioned in the constitution of the Industrial Council working honourably and properly, then he thought they were going to have a very fine industry in the future. (Applause.)

FUTURE OF THE COUNCIL.

The Right Hon. C. W. Bowerman, M.P., also responded to the toast. He believed the Council, which had now started on its journey, would achieve all its promoters wished, if the same excellent spirit that had prevailed that morning, and which had animated all the discussions leading up to the formation of the Council remained. Speaking frankly, he said there was a time when the relationship between

the workers' side of the printing trade and the employers' side was greatly strained. But that was a thing of the past. He was a great believer in meeting across the table. The men were now feeling that they were being recognised in a manner they had never been recognised before. That in itself was going to give the working side of the Council immense satisfaction. So long as each side was prepared to trust the other side, they need have no misgivings as to the success of the Council. So far as the workmen's side was concerned, their desire would be to make the machine absolutely smooth in its working and successful in its results, and at the end of the first year they would find that the trade had not suffered in the slightest degree, bearing in mind that they were all out for one common purpose: to do the best they could, not in their individual interests, but in the interests of the trade to which they belonged.

Mr. F. W. Bridges' Social Gathering.

IT was a happy inspiration that prompted Mr. Bridges to invite representatives of the printing and kindred trades to an informal social gathering at the Cannon Street Hotel, to celebrate the consummation of the work inaugurated by him at the Stationers' Hall some two or three years ago, at which meeting he called together the various interests in the printing trade to consider the scheme of betterment so ably advocated by Mr. McQuitty, of the "Belfast Telegraph."

Since that first meeting there has been innumerable consultations and meetings

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of various kinds and at many places, meetings that not always gave promise of results that could be termed satisfactory; meetings at which views so completely at variance with each other have been expressed that at times they seemed almost irreconcilable, yet patient perseverance and a determination to try and find the best possible solution of all the difficulties and problems presented, at last arrived at a *via media* that opened the way to mutual understandings and eventually culminated in an agreement being reached that made it possible to consider the formation of a "Joint Industrial Council" on the Whitley lines for the printing trade.

It was to celebrate this event that Mr. Bridges invited the trade, on the eve of the first meeting, to meet in social intercourse and by song, speech and refreshment to join in a very hearty wish that the newest Whitley Council should become a great success.

That the gathering was a very enjoyable one was evident by the pleasure shewn by those present, all of whom entered very heartily into the spirit of the meeting, whether it was artist or speaker or guest—all vied with each other to make the meeting a success, and in this effort they completely succeeded.

Glowing testimony was borne by one after the other to the enthusiastic part Mr. Bridges had taken in bringing about so desirable a result, and without doubt no small share of the success is attributable to his endeavours, and it must be a great satisfaction to him to feel he has played so brilliant a part with so much success, and the hearty manner in which he was thanked for the part he has taken was evidence that his work was greatly appreciated, not only by these present but by the trade as a whole.

Using the Right Filter.

AN investigator in plant pathology asked a photographer to photograph a number of specimens. They were green leaves on which appeared reddish-brown spots caused by some plant disease. The photographer tried ordinary plates and failed hopelessly. He then tried orthochromatic plates with a yellow filter and still failed to produce satisfactory results.

But he didn't give up. He asked for help, and was quickly told that a panchromatic plate with a green filter would give what was wanted. And so it did.

The panchromatic plate is sensitive to red and green, and because the green filter absorbed the red rays and transmitted the green, the red marks on the leaf photographed dark and the green body of the leaf light. If the leaves had been red with green markings, the same satisfactory result would have been obtained by using a red filter.

With Wratten Panchromatic Plates and Wratten Filters it is quite easy to secure first-rate photographs from subjects that it would be useless to attempt with ordinary plates. Try one for yourself. Choose a print which has been badly splashed with red ink. Copy it on an ordinary plate and the stains will come out black; then copy it on a Wratten Panchromatic Plate with a red "A" Filter, and you will be surprised to find that the stains don't show at all.—
Professional Photographer.

Negatives on Defective Glass.

WE sometimes find that negatives from which we wish to have as perfect prints as we can possibly get are on a piece of glass with a bad blemish in the shape of an air bubble or a scratch, which would give an undesirable mark on the print if printed in the ordinary way. In such a case, paste a piece of semi-transparent paper, such as that in which sensitized paper is usually wrapped over the face of the printing-frame, and these markings will be avoided in the print, except in very rare cases where the bubble is a most objectionable one situated in that surface of the glass next to the film.

Vibrations in the Camera.

THE writer was called in for advice as to the cause of the filling up of negatives where type matter was being reproduced. The copy was a most valuable and rare book, the type of which was about fourteen point, to be reproduced down to about eight point. There were several hundred pages, each page being photographed separately to get it absolutely square. In the reproduction negatives the kerns and hair lines of the letters were filled up and cutting was resorted to, which was ruinous of course, and always will be ruinous when used on line negatives. The collodion, developer and chemicals generally were blamed for the filling up of the fine lines in the negatives. The filling up was due partly to the fact that the collodion contained too

much bromide ; but the principal cause of the failure to get sharp and clear negatives was vibration of the camera during the exposure of the sensitive plate. In this case the camera stand was set solidly on the floor without any springs, as it was said that the concrete building in which the plant was located was as "solid as a rock." Still, when a bottle of ether was laid upon the camera bed and the reflection of the sky observed on the surface of the ether, it was found that never was the surface of the fluid without circular waves dancing on its surface. Even a basin of water on the camera showed that its surface was never still. With such vibration it was impossible to make negatives of fine lines without filling them up, and still the workmen never thought of vibration until their attention was called to it. As a temporary cure, three spiral steel springs were put under the camera stand one under a cross piece at the back and the other two under the stout front legs, and an improvement was found in the negatives immediately. In these days of ponderous motor trucks speeding through the streets there is no building free from vibration and if this is not taken up before reaching the camera the photo-engraver can not make proper negatives, particularly of fine line work.

About a Studio.

By Kathleen Hammond.

A STUDIO'S a funny place—few people ever start

To understand the meaning of the term "Commercial Art."

We draw the kind of pictures that are ever in demand,

The simple art of daily life, that all can understand.

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Without our work a trolley ride would be
a dismal thing.
And to the modern magazine an added
charm we bring.
We're very, very wide awake ; we have
to be, you see,
For we sell our Ideas broadcast for a stipu-
lated fee.

But a Studio's not *all* pleasure, some tragic
things occur ;
If you knew half our troubles, you'd pity
us, I'm sure.
Say a hard job we've completed on which
we've worked for days,
The Boss can't find a single fault and
even gives it praise.
Oh, how cheerfully we wrap it, and send it
on its way !
It's a wondrous satisfaction to know a
thing's O.K.

.
A voice upon the telephone a little later
on—

Says " Yeh, we like the sketch all right,
but Hell ! the size is wrong."

But still, you see, a Studio a pleasant place
must be,
For we all must work together in certain
harmony.
There must be a certain fellowship—
enthusiasm too,
From every single Artist if good work he
would do.
There's a necessary mixture of mirth, and
work, and thought,
So it can't be just a sort of Mart where
things are sold and bought,
But a place of inspiration, of Friendship
straight and true.
I really think a Studio's a pleasant place
—don't you ?

Enamel Coating is a Strong Light-Filter.

By Stephen Horgan.

A CONSTANT reader has considerable
trouble with the enamel lifting
during development, which he
overcomes through printing by electric
light for fifteen minutes. He sends the
formula for the enamel and wants advice
as to the trouble.

ANSWER. —The difficulty here is that of
so many engravers—they use the enamel
too thick. It is not always a question of
the proportion of glue in the enamel
formula but how warm the plate and ena-
mel are when the coating is applied and
how vigorous the whirling. A warm
plate and great speed in whirling produces
a thin enamel film, which is the best,
though only the most experienced engrav-
ers know this. Then, a thick enamel film
absorbs so much light. To prove this,
coat a glass plate partly with the enamel
in use. When this glass plate is dry put
it in the printing-frame with a half-tone
negative and sensitised copper plate over
it. Expose to light as usual, and on deve-
lopment it will be found that the area of
the enamel under the enamel-coated
glass will wash away, teaching one how
much bichromatized glue absorbs the
blue-violet rays—the rays that harden
the glue. The thinner the enamel the
less of a light-filter it is and the more
easily will the light harden the glue
right through to the copper as it should.

—*American Printer.*

HUSBAND : It's a strange thing, but
true, that the biggest fools have the most
beautiful wives.

WIFE (pleased) : Oh, you flatterer.—
Judge.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

Business Conditions in the Process Trade.

Extracts from a speech by Louis Flader at the American Photo Engravers' Convention.

As business in general readjusts itself from a war to a peace basis, the effects of this readjustment are felt in every line that has to do with advertising and selling. In April of this year statistics demonstrated the fact that magazine and newspaper advertising was fully twenty-five per cent. greater than normal. This, of course, accounts for the demand for our products. Up to this time the photo-engraver has had to confine himself almost entirely to promotional and publicity advertising. The follow-up matter, composed of circulars, folders, booklets and catalogues, has not yet put in appearance to any great extent. In the course of time it will follow. At the present time the volume of business in our industry can best be estimated by the fact that there are not enough men available to turn out the work that is demanded. This is true of practically every part of the country. Scarcity of help is not confined to the photo-engraving department alone, but extends to every part of the business, and has been especially pointed in the art department. There has never been such a scarcity of commercial artists as there was in the early part of this year.

Fundamental conditions point to at least two years of extreme activity in the photo-engraving business and at least

five years of what might be termed "good business conditions." By that is meant that there will be a healthy demand for our products, and one that will very likely tax our ability and resources to meet. Whether this period of activity will bring with it profits and prosperity to those who have their money invested in the photo-engraving business, depends upon their own action. We must not confuse volume of orders with profits. There have been conditions where a great volume of business meant great losses to the owners.

I would advise every photo-engraver to seriously consider his establishment with a view to replacing such elements as require it. The loose and wasteful methods of the past have no place in business to-day. You must remember that everything entering into your business costs more than ever before. Waste space, waste effort, waste material, are all expensive and all take away from profits. The greatest waste of all is labour—Time. The average wage paid to photo-engravers to-day is very nearly one dollar per hour. Add to this sum the non-productive time and the overhead expenses, and you find that the actual cost of your productive labour in the photo-engraving department is in the neighbourhood of \$2.50 per hour, or a little more than

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four cents per minute. Every time the second hand on your watch makes a complete revolution, it costs you over four cents for every workman in your photo-engraving department. Now if you can visualise the situation correctly, you will realise, perhaps for the first time, that when one of your men puts in twenty-five minutes on a piece of work that for any reason whatever is not saleable, you have lost one dollar. If you will check up your materials, both in stock and in the waste box, and your labour as carefully as you check up your cash, you will be a better business man than you ever were before. By comparison, you could afford to be careless with copper when you bought it at twenty-four cents a pound; you did not have to worry about silver at \$4.80 a pound, and you could afford to let a man remain idle for an hour or two while the bookkeeper went out for a router belt, when you paid the router only fifteen dollars a week. With prices of all these things as they are to-day, it's a horse of another colour. And bear in mind, you don't have to worry about the wages you pay, so long as your men are busy; but when they are idle—that's the time the figures run against you.

Another important matter is the question of middlemen. It is time that we give this subject our undivided attention. If we are going to eliminate waste in the photo-engraving industry, then let us begin by eliminating the most wasteful factor of all—the man who has no investment in the industry, who has no consideration for it, who renders no service, but who skims the cream off the milk. The photo-engraving industry does not produce such fabulous sums that we can pay good wages to the workmen in our

plants, make a fair profit for ourselves, and pass over a handsome sum in the shape of a tax to an outsider who injects himself between the producer and the consumer. Photo-engraving is a personal service, and the middleman is just about as necessary and as useful in our business as he would be in a barber's shop or in a dentist's office. Let us divide the income in our industry with those who have a hand in production and distribution, and let us keep it within our own institution. These "Grand Dukes" of the engraving business are out of date and out of place.

The photo-engraving industry is in a flourishing condition to-day, thanks to the efforts put forth by the American Photo-Engravers' Association. We have the machinery with which to protect our interests and to meet every issue that may arise. We have men within our ranks as capable, as able and as willing as those found in any other line of business. Our accomplishments have been wonderful indeed. What we have done is merely a promise of what we can and will do. We are so well established as an organisation and an industry that we need only think and act in a manner to continue what we have so well begun. We have been leaders in industry in many ways. Our efforts have been a source of inspiration to other organisations, and many of our accomplishments have been and are being copied by larger interests. I predict that within the course of time, instead of urging photo-engravers to join our organisation, we will exercise some discretion about admitting prospective members. Membership in the American Photo-Engravers' Association is an asset, and should be a source of pride. Let us make it worthy of proud acclaim.

New Designs for Book Wrappers.

✓ **O**WING to the increased cost of production there has ensued a marked change in the style and processes of printing what is known to the publishing trade as "book jackets"—the wrappers which are almost invariably placed around new novels, etc. Previous to the war the three-colour process produced some really beautiful work for "jackets" by the combined efforts of artists and craftsmen. At the present time several firms are successfully using two half-tone blocks from sketches which the artist draws for this cheaper method of production, also designs for which the lithographer can use his stipple for graduations of effect and colour. It is not exaggerating to state that some of the recently produced "book jackets" are more artistic in conception and execution than the illustrations in the text of the books they cover.

Possibly, to some extent, the lithographers' craft has been overshadowed by the marvellous strides made in letterpress printing, in the way of clear-cut fonts, distinctly printed, intricate scrolls and bordering, and other ornamental accessories. This may be the reason why there has ensued such a falling off in the demand for copper plate printing, which seems to have been almost superseded by cheaper letterpress production.

Another reason why commercial firms do not order so much lithograph printing as hitherto is the scrimping manner in which it is sometimes executed. Not only does this kind of thing lower the status of the really artistic industry, but it inevitably curtails orders.

In contrast to this unsatisfactory mode of production, I once worked for a firm that

printed an illustrated price list in which a turtle was depicted. The lithographer was so particular to imitate the peculiar greenish yellow of its skin that a turtle was kept in a tank beside his machine for that purpose!

One often wonders why British printers do not try the experiment of combining letterpress and lithographic processes to save time and cost. As I have pointed out in a previous article vast quantities of brass rule (now an expensive item) could be saved by letting the transferrer draw in the lines for tabulated statements and similar jobs necessitating the cutting of brass rule. This may not be advisable for long runs, but in the case of table plans for banquets, corridor trains, and ships' dining saloons, etc., it means a great saving in time, cost, and material. I fully anticipate that for playing-card printing a combined letterpress and lithographic machine will soon be on the market, and it would constitute a splendid innovation.

When we consider the marvellous progress the art of lithography has attained since Senefelder discovered the possibilities of the antipathy between grease and water, surely—now we possess such wonderful mechanism offset inks, and superior-surfaced, properly matured paper—the lithographic printer should be able to secure a fair share of the industrial boom our expert economist predicts after the war.—*British Printer.*

HELLO, BILL!

If you get to heaven there will be those there whom you will be surprised to see, but they will be just as surprised to see you.—*The Three Partners.*

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. D. GREENHILL,
The Sun Engraving Co., Ltd.,
Milford Lane, London, W.C. 2.

Treasurer—

MR. EDWARD W. HUNTER,
The Sun Engraving Co., Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.
Telephone: 5596 Bank.
Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

THE work of the Council during the past month cannot be described as arduous, though it has been far from unimportant, for there have been matters calling for consideration that have needed all the wisdom and attention that could be given them. Seeing the Federation has now been in existence so long a time, it might be thought by some that everything that could by any means need attention would have been settled, and out of hand long before now; such, however, is not the case, for matters crop up from time to time that present so many difficulties, and that need such an amount of careful consideration that oftentimes surprises even the Council itself. Is it possible to look forward to the time when the Federation scheme will be so perfect that there will be no need for the Council?

One of the most pleasing features of the work during the past month was the unanimity with which the Trade accepted the decision of the Council that prices should not be raised as a consequence of the latest increase in the wages given to the employees.

The matter was very carefully considered by the Council, and though some members felt it was incumbent upon the Council to raise the prices, others thought that by economies, which might be effected, the cost might be partly met, the employers bearing the remainder out of the very thin margin of profit the business provides, and, as every member

knows, the latter was the course which found the greatest favour.

Then came the question, would the general body of the members back the Council's action, or would they go solidly against it. This was felt to be a very delicate question, as in no case previously had an increase of wages been given without a corresponding increase in price.

The outcome has fully justified the course taken, for of the whole of the members of the Federation only some 5%, representing about $1\frac{1}{2}\%$ of the output, have in any way questioned the decision; such unanimity was hardly expected, and it speaks volumes for the confidence the Trade repose in the Council it has elected, and which has done so much to safeguard the interests of the members, to put the business upon such a sound and firm footing, and to consolidate the work of the Federation. It need hardly be said that the members of the Council greatly appreciate this mark of confidence.

One of the most important interviews accorded this month was that given to the Platen Printers Machine Minders' Association, who have sought recognition at the hands of the Council.

This matter has been under consideration for a considerable time, but certain difficulties had to be surmounted, which at one time seemed to be so formidable as to prevent any chance of agreement.

These matters have been argued again and again, till at last there seemed to be sufficient light thrown upon the questions to enable a definite proposal to be put into such a form as would safeguard the interests of all concerned, and give each side the protection it felt to be not only desirable, but really imperative to secure.

The outcome of this last interview is

that the Federation is prepared to enter into an agreement with the Platen Printers Machine Minders' Association upon identical terms with those in existence with the Amalgamated Society of Lithographic Artists and Process Workers. By such an agreement the Provers who are members of the forenamed society will secure all the benefits the Process Workers secure under their agreement, while the employers will be secured against any restriction upon the rights and privileges now enjoyed by them in connection with the proofing of Process Blocks. As soon as an agreement is ratified and printed the Members of the Federation will be fully acquainted with all the particulars of the same.

The arrangement, however, will relate to the London Houses only, as the Platen Printers' Society have so few members in Provincial Process Houses it was considered inadvisable to extend an agreement to them, until such time as the Society can prove to the Federation that 90% of the Provers in Provincial Houses are members of their society. When they can give such assurance, the Council will consider the question of extending the agreement to the whole of the country.

During the month the President has visited Scotland for the purpose of interviewing the Houses in Edinburgh and Glasgow, where so much important work is done. The direct results of his visit, will, we believe, be that more harmony will prevail between the houses in those great cities and possibly the formation of a Scottish branch of the Federation similar to that recently formed for the Midlands, both of which will be worked upon lines closely resembling the Northern Federation, which has its headquarters in Manchester. That such branch organisa-

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tion can be of enormous value to the houses in their respective centres has already been abundantly proved, and we look forward to the day when more such centres will be formed, to help on the work now so happily progressing.

The Joint Industrial Council, under the Whitley scheme, has been taken a step or two further; the Government Department more intimately concerned with these matters thinks it can improve upon the scheme as presented by the Federation Council. Whether that be the case time alone will prove, still out of the many Councils that have now been established the Department should have gained some experience, and if they can show us a better way there is no doubt that the Trade will willingly adopt it, all the same it is pretty evident that the matter has been already unduly delayed, and it is time the final steps were now taken.

The question as to what class of firm is entitled to the Trade Discount has been before two or three of the Council Meetings, as it appears that certain firms who have a printing department or an advertising department for the purposes of their own business claim, in virtue of such that they come under the heading of Trade Houses, though they readily admit that printing, publicity or advertising do not constitute the main features of their business.

That such houses *must not* be allowed the Trade Discount is perfectly clear from the paragraph in the discount table, where the matter is fully dealt with.

For instance, a soap maker or a jam manufacturer may have a very large business, and it may be that he finds it to his advantage to put in a printing plant to do his own printing, but he is

still a jam manufacturer or soap maker. That is his business, and the printing plant or advertisement department is only a side line with him he is not therefore in the Printing Trade, and is not entitled to the Printers' Discount, he is entitled to his discount for prompt monthly payment, and nothing more.

One very important house sent the manager of its publicity department to argue this with the Council, and he certainly did his work well, and put up a really good fight, and maintained that they were printers, publishers, and advertising agents *in addition* to their trade by which they were known the wide world over; but though he did his utmost and argued his best he had to go away without securing the purpose for which he came, and the Council felt that when the matter had been fully explained to him he realised the justice of the decision.

Complaint was made to the Council that some members of the Federation were not treating returned soldiers too generously in the matter of holidays, in fact were not treating them equally well as they were their staff who had not been to the war.

It is of course impossible for the Council to lay down any rules saying that firms shall treat their returned soldiers in any given manner, but it is felt that the men who had been compelled to leave their homes and their employment, to go to the war, should be treated at least equal in the matter of holidays with those who have been allowed to remain at work.

The Council therefore has issued a general recommendation on these lines, and there can be little doubt but that every house will willingly fall in with the suggestion, and treat the returned soldiers in the most generous fashion.

A Great Day at the Sun Engraving Company's Watford Works.

SATURDAY, August 9th, 1919, will, we think, be looked upon by the Directors and employees of the Sun Engraving Company as THE great day in the history of the firm.

It is almost impossible to say which feature of the festival should be given the greatest prominence, for each has a special claim all its own.

It was the twenty-first anniversary of the founding of the Company. It was a welcome home to those employees who had been called to the war, and who, happily, had returned to resume the occupations laid aside at the call of their country. It was their celebration of the signing of the Peace Treaty; and it was the opening of the new and extensive premises of the Company just erected at Watford. With so much to claim the attention and to compete for the position of honour, who shall decide which has the pre-eminence?

That the Directors were determined that nothing should be wanting on their part to make the day a splendid success was amply shewn by a study of the handsomely produced programme, a volume of twenty pages, given up in its entirety to detail the arrangements for the day's festivities, of which there was an almost inexhaustable supply, consisting of sports of all kinds, steam and hand roundabouts, Aunt Sally, swing boats, coconut shies, tug-of-war, sack races, concert party, dancing, cinematograph, fireworks, fancy dress ball, etc., etc. With such a plethora of good things, and crowned as it was by the finest of weather, was it not impossible that

those present could do anything but enter fully into the joy of the day, made all the more gay by the music discoursed by the firm's band.

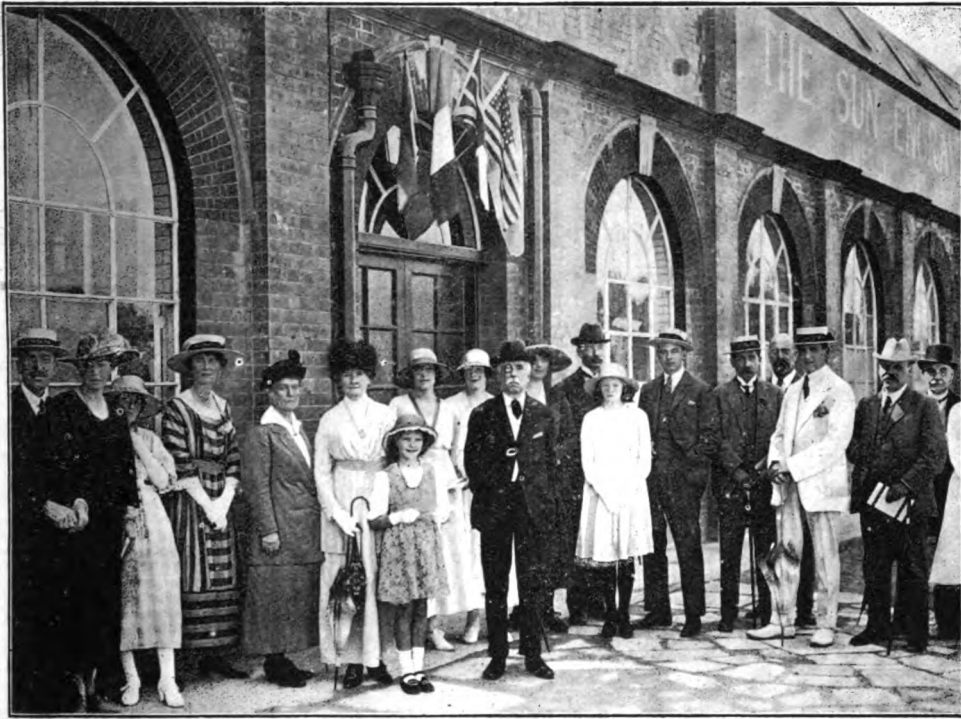
Everyone present seemed to abandon themselves to a time of merry-making such as only a party feeling quite at home could do. Consequently, whether it was the child of tender years, the youth and maiden, or the veteran of nearly ninety summers, there was evidence of such complete satisfaction, such unmistakable shewing of heart contentment that can only come when everyone is enjoying the "happiest time of their life," and if we dared but tell of the escapades of the Directors, how they put off their dignity and became boys once again and entered into the frolic of the day. Whether it was the fun of the fair, roundabouts or races, or what else, we fear some of their staid customers would wonder what next. We think it is questionable who enjoyed the fun most—the employers or the employees.

The first item on the programme was the opening of the new buildings by Mrs. Curling Hunter, mother of three of the Directors, and great friend of Mr. Hughes, one of the founders of the business.

Mr. Edward Hunter, the Managing Director, in a happy vein, presented his mother with a silver key with which she opened the door of the establishment, and in a joyous note and with choice words referred to the auspicious occasion that had brought them together, declared the works open and gave expression to her greatest wish that success might continue to attend the efforts of all connected with the company.



At the tea tables: About 1,200 partook of the refreshing beverage.



Mrs. Curling Hunter declaring the works opened.

If we mistake not, it must have been a proud moment for her as she beheld what we believe to be the largest and most perfectly equipped establishment of its kind in this or any other country, the outcome of the work of her sons during the past twenty-one years, the leading part in which has been taken by Mr. Edward Hunter, the senior Director, who was assisted by Mr. Hughes, and afterward joined by his brothers, Mr. Hugh and Mr. Noel Hunter; then by Mr. Greenhill and others, who now help him to bear the burden of so great a responsibility.

In our September number we hope to give a description of the premises with views of the various halls, etc., etc., but our readers may form some idea of the size of the works from the illustration shewing about 1,200 persons seated for tea in one of the two great halls reserved for photogravure.

It is needless to say that the day was a great success, and that enthusiasm ran very high, and as Mrs. Curling Hunter presented the prizes rounds of cheers were given for the winners, but a solemn hush pervaded all as Mr. Hunter, in his speech, with evident feeling, referred to those who would never return—those who had made the supreme sacrifice.

Afterwards, when evening shadows had gathered round us, and the cinematograph had run its course, the grandest display of fireworks ever seen in the neighbourhood caused great delight to young and old.

So thoroughly had everyone caught the spirit of joy that once the dancing commenced it was extremely difficult to bring the meeting to an end, and we fear it was daylight before some made their way homeward, thoroughly happy and joyously tired.

Our Representatives and a Grievance.

To the Editor of

THE PROCESS ENGRAVER'S MONTHLY.

SIR,

As a subscriber to and constant reader of your journal, and believing as I do that it is conducted with the object of furthering the general interests of the trade as a whole, I venture to approach you in the hope that you may think it only just and fair in these days, when we hear so much about the claims and requirements of all organised workers—and masters as now represented by their Federation,—to find space in your columns for a few thoughts on the present-day situation from the point of view of those who do the spade work, as it were, cultivate the account when once opened, act as buffers and peace makers at times of friction, and, to a large extent, make it possible for any particular house to exist or have any work at all to do. I refer, as my heading implies, to the agents, representatives and travellers of the various firms who I venture to say—as a body of men—have felt the effects of the last five years of war more than any other class of workers in our trade, many of whom have also had to devote their time in one capacity or another to H.M. Forces and thus lose touch with their ground and connection.

Even with those of a more advanced age, or left behind from one cause or another and thus able to “carry on,” the almost immediate effect of the breaking out of war was such a shrinkage in the bulk of business called for that their income—largely derived from commission on orders received and in some cases wholly so—shrank very much indeed, and became greatly reduced. As the cost of living gradually but steadily

increased, their position became still more serious and inroads had to be made into what capital or savings they had. This has gone on to such an extent and for so long a time that I am no doubt within the mark in saying that many of us have lost the greater part of our resources.

It may be said, we get the benefit of the advanced prices for blocks and process work of all kinds. Of course, theoretically, that is true, but as a matter of fact it has not yet worked out that our incomes except in some special cases, are any better than they were before the war and with the old prices. If the same bulk of work could be secured and produced as of yore, things would be very different no doubt, but that has been quite impossible for some time past and I, for one, do not see much prospect of it returning in the near future. Where is the average man who doing, say, a turnover of £3 000 or so before the war and before prices went up, is now doing £4 000 or £5 000 at present prices instead—thus securing an increased income?

The actual workers in studio, etching room or mounting department are drawing something like double their pre-war wages, dealers have been getting appreciably more for their metals, chemicals, &c., and no doubt the heads of businesses are doing—and rightly so—better for themselves than in the past, for it is quite possible that those interested in net profits may do much better on a given turnover at a given time than on the same amount at another time, and under other conditions. I believe the office and clerical staff has also generally been remembered to some extent. The agent or

representative, however, tied to his 10% or whatever, more or less, it may have been, is no better off, and no doubt finds it extremely difficult to get his turnover—even at present prices—up to pre-war figures, or if in some cases this is achieved, not sufficiently exceeded to make such differences in his income as present circumstances demand with the pound sterling worth only what it is to-day.

No, sir, the only correct remedy it seems to me—and I believe I voice the feelings of many others—is to raise the rate of commission (or total percentage of remuneration if given in form of salary and commission)—in fact for principals and employers to recognise that the pre-war idea of about 10% being a fair and sufficient share for the agent who has introduced or worked up valuable business, is not good enough now under prevailing conditions.

Something needs to be done, and it seems to point to some possible joint action being adopted before long by all those concerned. It is a matter that deserves, and I submit might well receive, consideration and attention from the Council of the Federation, who seem almost to have hitherto omitted us from their calculations.

I am, Sir, yours obediently,

ONE OF THEM.

NOT QUALIFIED.

THERE are some people who are "too responsible," like the man who saw an advertisement for a French cook in the paper, and woke up the advertiser at two-thirty in the morning, in a friendly and hilarious way, to explain to him that, as he was neither a Frenchman nor a cook, it would be impossible for him to take the position.—*Bethlehem Booster.*

That Contract.

A good deal has been said and written at different times on the subject of contracts between engravers and their customers. Years ago, when the engraving industry was a new one, and when there was no standard of quality or value, it was perhaps necessary, occasionally at least, to dignify the purchase of engravings by writing a contract governing their production and sale. As time wore on and as understanding grew, both on the part of the buyer and the seller, contracts became less of a necessity and were but seldom resorted to. Eventually, the price of engravings was hammered down by the buyers, to the point where practically a uniform price existed in each locality; this figure being the lowest that one engraver could be made to accept, whereupon the balance had to follow suit.

Time and the changes that it brought with it altered a good many things, not only in the engraving business, but in other lines, as well. We all went through the experiences of sharp advances in the price of materials and labour in the last three or four years, and if all contracts made in all lines of business before the war had been strictly enforced during the time that the cost of production jumped from 50 to several hundred per cent., many business institutions would have been forced into bankruptcy, and industry itself would have been stifled. As the Government itself was the biggest buyer during that period and as delivery of war munitions and food was absolutely necessary, there was little haggling about prices or contracts. Adjustments were made and when the Government showed a disposition to be fair, private enterprise had

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to follow suit and contracts were dissolved by mutual consent and reinstated on a basis fair to the seller, as well as the buyer. In that way production was not only maintained, but increased, and the war was won.

So much for business in general. In the photo-engraving business, a contract between the buyer and seller is absolutely unnecessary and is never proposed in good faith. This takes in everybody and goes as it lays. It is a comparatively easy matter to draft a contract dealing with the production and sale of commodities and articles in common use, but it is next to impossible to draft a contract for the sale of a personal service, such as photo-engraving. It is next to impossible for this reason: As a rule, a contract made for the purchase and sale of engravings for the period of one year cannot even state the quantity of the purchase, because the buyer does not know how much he is going to buy. The contract cannot possibly define quality, because quality in a service like photo-engraving is something that cannot be standardized any more than art can be standardized. It depends entirely upon the knowledge, viewpoint, understanding and taste of him who sits in judgment. Who is going to decide whether the quality is right or not—the buyer or the engraver? Since quality cannot be defined or measured, neither can service. Since satisfaction and acceptance are necessary elements in the matter of barter and sale, both of these are impossible if the buyer for any reason sees fit not to acknowledge or grant them. In other words, a contract for the purchase of engravings is either entirely unnecessary and uncalled for, or it is drawn for the benefit of the buyer only, and intended to be used by

him to gain an unfair advantage over the engraver.

Not long ago an engraving establishment had made a number of sets of three-colour process plates from certain articles for household use, amounting to about £500. The plates had been rejected by the purchaser as being of inferior quality and consequently unfit for use. He declined to accept the plates and refused to pay the bill. The matter was placed in the hands of competent attorneys and suit was brought in a court of proper jurisdiction. The writer was called upon to consult with the attorneys representing the plaintiff in an effort to collect the amount due. It was discovered that the usual form of contract had been signed by the engraver, containing a very innocent clause and one which had always been inserted in all contracts written by that firm. It read like this:

The — Engraving Co. agrees to make three-colour process plates of the subjects herein described to the entire satisfaction of the party of the first part, within the period of four weeks after receipt of merchandise.

Simple enough and plain enough, isn't it? Here is what happened: The customer sent in the merchandise and after the work was about three-fourths completed, discovered that because of the war he could get no further materials, consequently, would be unable to fill orders that might be received from the advertising matter he then had in course of preparation. He wrote the engraver and asked him to stop work on the order. When he learned that it was almost completed, he advised the engraver to go ahead and finish his work. This was done and when proofs were sent to the customer he marked up a number of corrections and

sent them back so that the plates could be revised and altered. This process of alteration was repeated four or five times, when the customer wrote the engraver that it was very evident that the latter was "slipping," and that inasmuch as he could "not satisfy" the customer, he might as well stop work and cancel the order.

That's all. Draw your own conclusion and moral.

Since the price of engravings, like the price of everything else, has changed repeatedly in the last two or three years, due to the increased cost of production, some of the wise birds are at it again, trying to kill the engraver with kindness. They are offering to make contracts for one or two more years, thus trying to tie his hands with subtle flattery in such a way that *no matter what it costs him to make engravings during that period, it will cost his customers no more to buy them.* For the promise of an indefinite quantity, the engraver is to assume definite responsibilities. Old birds are not likely to be caught by chaff, but some of our friends who have gone into the business in recent years and who haven't been through the mill, might give heed to this warning and save themselves a lot of trouble and some money. Bear this in mind: *There has never been a contract written nor is there likely to be one written by the terms of which the engraver can make his customer buy engravings if he doesn't want to do so. Every contract that ever was written is good enough, however, to compel the engraver to make good on his end of it, no matter what it costs him to do so.*—From *The Bulletin*

If a man would count his successes by his efforts instead of his rewards, how happy he would be.

Two Colour Half-Tones.

EDITOR'S NOTE.—To best tell the story of the two-colour half-tone in an interesting manner—not too technical, yet not lacking in technical information; not too much selling, yet not lacking in selling value; not too much art, yet giving the essence of the necessity of art—the idea of a composite article was conceived—written from four angles instead of one. First, the Buyer; then the Engraving Salesman, the Artist, and last the Colour Photographer, each tells the story as a separate unit from his viewpoint

Written for "The Commercial Artist"
by F. V. Dewey, Jr., Editor of "The
California Motorist"—"C.S.A.A."

B EING a firm believer that an attractive magazine cover is just as much an index to the quality of its contents as an attractive home exterior is an index to the attractiveness within, I have found that the two-colour process, in the hands of a capable artist, best meets the requirements of "The California Motorist" within the limits of expenditure for this purpose.

While four-colour process greatly increases the possibilities of colouring, it also greatly increases the expense of plates and of printing to a degree beyond our reach. I was agreeably surprised myself to note the number and variety of shading and colouring Mr. Maurice Logan has been able to secure in our two-colour process covers, and to the uninitiated they have every appearance of containing three or four colours instead of two. We have had many compliments on our covers as being

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excellent examples of the two-colour process, not only from the artist's standpoint, but also from the standpoint of the engravers and the printers.

Written for "The Commercial Artist"
by Frank Vignola, Sales Manager,
Sierra Art and Engraving Co.

THE use of colours in illustrating catalogues and advertising matter has proven that its selling value is far superior to the plain one-colour work. It has, however, been neglected somewhat in the past, on account of the higher prices of three and four-colour process plates.

The great advancement made in two-colour plates recently has made it possible for almost any concern to introduce colour into its advertising. This method is the least expensive of all colour printing, and the results, in some cases, are not surpassable by the most expensive methods.

Many publications have found the use of two colours in illustrating the covers, as well as the interior of their books, both practical and profitable. This can best be seen by examining any issue of the "Saturday Evening Post," its covers being printed usually in bluish black and orange. Here is an example of high-class colour printing. The "California Motorist" carries the use of colour to a greater extreme by using combinations of colours other than black and orange. The writer considers this the perfection of two-colour printing.

The selection of colour schemes should be left to the artist and the engraver, because there are certain combinations of colours that do not harmonize, and the layman, in selecting his own colour

schemes, is very apt to choose combinations that are anything but pleasing.

It has been demonstrated that a product illustrated in colours will sell itself ten to one over a product illustrated in one colour only.

By examining a few catalogues you will notice that some of them are printed in ordinary black ink with a border or some other decoration around the page printed in colour to help brighten it up; whereas if a little colour were applied to the illustrations a much more attractive piece of printed matter would have been the result, with practically no advance in the cost of printing.

Written for "The Commercial Artist"
by Maurice Logan, Commercial Artist.

HANDLING drawings for two-colour halftones might possibly be considered a knack, but more likely it is premeditated thought.

The simplicity of the method is the difficulty, and can be summed up in two words—colour spots. That is, spots of pure colour played one against the other to increase the intensity of both. The method of applying the medium is important to this extent, the colours are mixed, not just stirred.

Of course too much cannot be said regarding the choice of colours. The laws of primary and secondary colours must be observed—for instance, a green blue key colour and a crimson red would not give as pleasing results as the same blue with a vermilion; the latter more nearly completes the circle of primary colours. In other words, the vermilion gives the value of yellow which is not at all present in a crimson red.

Light and shade, warmth and coolness, each has its share in governing the choice

and the beautiful variations of light, shade and colour found in this process are directly attributed to intelligent choosing of colour combinations. While the painting of an original does not involve the work a three or four-colour half-tone would require, yet the knowledge of what to do and what not to do causes the artist to concentrate more in proportion.

It is a process to be recommended where economy must govern the reproduction.

**Written for "The Commerical Artist,"
by Jack Bennett, Colour Photographer,
Sierra Art and Engraving Co.**

THE process that makes a composite picture of two colours, especially where each colour is separated from the other, and each retaining all the shades and colour, requires a skill and knowledge not usually attributed to engravers. We are critical of the work that comes to us for reproduction, not in the sense of good drawing or good design, but in the sense of good reproductive qualities. If the artist handles his work correctly, especially the drawing; for two-colour half tones, his colour scheme must first be true, and secondly, pure.

By truth of colour scheme I mean that the two colours used will create, as nearly as possible, the circle of red, yellow and blue—one colour at least retaining some quality of the third colour. By purity I mean the adherence to the colour scheme, without deviation for the sake of creating effects, and by the clean mixture of medium and intelligent use of contrast.

A little forethought will save considerable afterthought, because, while a simple process in the makeup, the ease of manipulation is in proportion to the adherence to the principles that make the two-colour half tone possible.

About the Making of Pen and Ink Drawings.

THE value of pen and ink drawings in advertising is often overlooked, says "Northern" the house-organ of the Northern Engraving Company, Canton, Ohio.

This medium has its particular place that cannot be taken by any other method. In newspaper advertising the zinc etching from pen drawings is sure to print satisfactorily, while the half tone is always an uncertain quantity. Contrasts can be obtained in pen drawings because the blacks are always black and the whites as white as the paper. The zinc etching will print on any stock and is therefore used extensively for cover designs to be printed on rough cover paper.

But there is more to be said in favour of the pen and ink drawing than merely the fact that they have 100 per cent. printing value. A good pen artist eliminates all the non-essentials and shows only the necessary part of an illustration.

And there is an appeal in the black and white drawing that is lost in other mediums. Line drawings have appealed to us for some reason ever since we were kids. We remember Gibson, Flagg, Lowell and the cartoonists of our boyhood days, but we do not remember the illustrators who used other mediums. Maybe it is because pen drawings are so elemental and so simple.

Mechanical subjects are reproduced by the pen and ink process, and shown in various ways. In olden times wood cuts were used and they had their advantages. But now the zinc etching takes their place, having all their advantages together with

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the life and appeal of modern art. These drawings are made mechanically accurate because they are made directly on the photograph or silver print. After the drawing is made the photograph is bleached, leaving the paper absolutely white except for the ink lines, which resist the bleaching acid. Very simple, isn't it? The process is simple enough, but the work isn't so easy. This artist must be mechanical as well as artistic. He cannot use the freedom of the illustrator. His work is not suggestive, but every detail must be drawn perfectly. Every line must be right. He must show the different textures and colors of materials, as wood, brass, iron, cloth, etc. This requires exceptional skill. Catalogues are illustrated with drawings of this kind instead of half tones. When colour is used in the proper way the illustrations are rich and distinctive. We would not recommend this style where details are not important and where the general appearance of the thing advertised is sufficient. In advertising an automobile to women, for instance, it isn't necessary to show every rivet head, but it is necessary to show something that looks classy; in other words, to illustrate the beauty of it. Pen drawings with colour plates can often be used effectively.

Ben day shading is made not on the copy but on the plate itself and must be put on every plate made. It is an effective method, however, for obtaining a variety of attractive results from the same drawing.

Ross paper comes in a great many designs. This is the stipple dot. The dots are elevated above the surface of the paper so that when a soft pencil or crayon is rubbed across the paper the dots appear in black. On some papers the lines or dots are printed in black and scratched

away by the artist, allowing only those to remain that are needed to shade the parts requiring the treatment. A great many different artistic effects can be obtained this way and the drawing once made can be reproduced any number of times and in different sizes. This is the main advantage of ross paper drawings over ben day. Ben day screens are placed on the zinc plate, and every zinc etching of the same subject that is made must be ben dayed. If you should order three zinc etchings of the same subject with ben day shading, each of the three would require the extra ben day work. This is not true of a ross paper drawing, because here the shading is on the drawing.

A pen and ink drawing may be elaborated by the use of "spatter" work. Ink is spattered onto the drawing in dots of various sizes and gives texture values as well as tone values. Similar results can be obtained with crayon or ross paper, but spatter is preferable if different tones are to be obtained. Some artists become very proficient, and by using other stiff brushes obtain exceptionally beautiful effects. Sometimes the process is reversed and white is spattered on black. The results are just as satisfactory.

Your Makeshifts.

DID you ever take a census of your makeshifts? Very likely you have never thought of it before.

MAKESHIFTS! The country is full of them. They are in every shop—every factory—every mill.

They are human and mechanical both. They are animal, vegetable, and mineral.

In fact, we are all doing such miscellaneous work that we are very largely makeshifts ourselves.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

How to Reduce the Cost of Production and the Selling-prices.

By A. J. Newton, late Principal of Bolt Court School.

I WISH to be quite frank about the subject assigned to me. We are all in business to make a profit, and it is a tacit assumption that we must maintain at least the same profit if we reduce the selling-price; in fact, if the aggregate profit is not to be greater, there is little object in either increasing production or reducing selling-price, unless the photo-engraver wants to benefit his kind by providing abundance of engraving without hope of any extra reward for his efforts.

Highly profitable businesses can be divided into two kinds: the common object, produced in huge volume, and the extremely rare object, which has a monopoly value because of its scarcity. The Ford motor car is an example of the first. Because of its quantity production the profits are large, although the highest wages are paid and the best material is used. The other type of profitable business is the antique dealer, who, if he has a suitable market, can sell his treasures at a profit of thousands per cent. Now there is no chance of photo-engravings coming into the latter category, so we are confined to seeing how nearly we can approach the volume production type.

The first necessity for profitable busi-

ness is plenty, but not too much, work all the time. Every engraver knows that if he makes an average profit with an average volume of work, when he doubles the volume his profits will increase more than proportionately; if he halves his volume, not only will his profits vanish, but a serious loss will be incurred. This volume must be evenly distributed. To have too much work is almost as bad as not to have enough; everybody is worried to death, and work is often poor as a consequence. Unless we have volume, therefore, there is no chance of reducing costs or reducing prices. If you have volume, both would be practicable. How can the engraver get a bigger volume of work?

- By inducing further consumption. How much further can consumption be increased, and will the increased consumption be supplied by the firms already in the business? If not, that is, if fresh firms are to be started, there will be no increased volume for those already in business and therefore the cost of production will remain the same. It is useless to talk about technical improvements or organization of staff unless you have a volume of work that will enable you to install time-saving methods, and the very increase of work with a staff that is willing

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to co-operate will itself cause quicker methods to be adopted. Economy in production is almost entirely a question of sub-division of labour and specialization of work, and this can be accomplished only where there is a large volume of work and a staff of specialists to handle it in smaller and smaller stages.

It is unlikely that we shall see specialization of the various fields of photo-engraving and each firm undertaking only the work for which it is exceptionally qualified. This might lead to a lowering of cost of production, but, as things are now, it is difficult to see that a very great lowering of cost can be expected. If we have to handle all kinds of work well, all we can do is to get men of the highest skill and endeavour to see that they do their work in the most efficient way—not a very easy thing, for a highly skilled man often insists upon doing his work in his own way, however wasteful, and if you wish him to do it differently, he is no longer skilful, but tends to spoil everything.

It is no doubt possible that a certain amount of extra production could be obtained, even by present methods, if we had complete co-operation of staff and willingness to speed up, but this cannot be expected unless the men have some further incentive than their regular weekly wage, and therefore some extra payment for extra product must be provided.

This is a difficult thing to work out for photo-engraving, but, nevertheless, I believe it can be done, and, in fact, must be done if we desire to reduce costs of production. The men would have to be guaranteed their regular wage in any event, and then all over a certain standard of production would be paid for extra, and they should be allowed to have some say in the fixing of these rates, that is,

you must govern with the consent of the governed. Their payments should take the form of cash, paid as soon as possible after the work was completed, so that the incentive and the reward are not too far apart.

Careful track of costs must be kept if we are to know which kind of production pays and which does not pay, so that the latter may be eliminated. Overtime must not be worked without it being distinctly understood that there is an extra charge, to cover its cost. Duplicates should be encouraged, as it will be found that duplicates cost less than the fifteen per cent. reduction allowed by the scale. Cash payments must be required, as long credits and bad debts are part of the present cost of production.

As far as I can see there is small prospect, at present, of costs of production being reduced, but I have stated what I think are the necessary conditions. If these conditions can be complied with there is no reason why costs should not be lowered and, if the engravers wish to do it, selling prices reduced—not otherwise.

At the last general meeting of the Victorian Master Process Engravers' Association a resolution was passed binding members individually and collectively not to buy any machinery, zinc, copper, or process material of German or Austrian manufacture for a period of ten years from the date of the signing of peace. The New South Wales Master Process Engravers' Association has also passed a resolution in support of the Victorian Association.

WHERE, says the old printer, is the man who prophesied that prices would drop when the war ended?

How to Popularize Illustrations.

By R. B. Teachenor.

IT is fortunate that illustrations have already become a necessity. It is therefore needless to make an effort to create such a condition—it now exists! A glance through the pages of every high-class periodical shows that scarcely one in a hundred advertisements is without an illustration or an engraving, used as a necessity to attract the eye, compel attention, or make plain that which is advertised. The printed picture is an integral part of the literary or news page. Catalogues are valueless without engravings that show correctly the goods to be sold. Paper manufacturers, ink makers and press builders are now vying with one another to let it be known that their products are made in just the right way to enable halftones to be printed in the best manner. The artist and the engraver are taking first rank; other graphic artisans keep step with them. It should be the duty of every engraver to have these facts plainly recognized and stressed to make them plain to everybody. Every man in the industry should be made a press agent to spread the popular use of photo-engravings. This can best be done by individual advertising, by short talks before local business clubs, by articles in trade papers, and by many other methods that present themselves.

Publicity should be aimed at the value and practical use of the product of engravers by the advertiser, the manufacturer, the business man, the publisher and the printer. It would be a mistake to attempt to awake interest in technicalities describing heretofore mysterious processes of plate-making or descriptions

of apparatus. These things do not interest the buyer or user of engravings. What he wants to know is how his message to his customer can be made more attractive and enable him to sell more goods. In other words, his profit in dollars and cents is what interests him beyond all else.

Every engraving concern has on its list of customers a large number of publishers. It is impractical to advertise by display card in such publications, since an advertisement in one invariably is followed by expectation of similar patronage by all others. The result is dissatisfaction all around or a prohibitive expense. An opportunity for real publicity for the industry might be made by the engraver securing the insertion of an occasional short article of literary value on the subject of the popular uses of engravings, such article concluding with the statement that the engravings used in this publication were made by this engraving company.

WHEN the finger nail accidentally catches the wet gelatine of a negative, a piece of film is generally left hanging loose, and it is a difficult matter to get it back into its place without showing a pronounced mark. The difficulty arises from the fact that the piece of film has expanded and instead of fitting nicely into the space from which it was torn, it overlaps at the edges. The way to overcome this is to soak the negative in a mixture of half methylated spirits and water. This will shrink the piece of film down to its original size, when a little delicate forcing with the

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THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. D. GREENHILL,
The Sun Engraving Co., Ltd.,
Milford Lane, London, W.C. 2.

Treasurer—

MR. EDWARD W. HUNTER,
The Sun Engraving Co., Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.
Telephone: 5596 Bank.
Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

DURING the holiday season the meetings of the Council have been held on alternate Mondays, this being found sufficient for the purposes of keeping the work in hand, there having been a remarkable falling off in the demands made upon the time of the members of the Council.

Although the questions calling for attention have not been numerous, some of them have been very important indeed, and have in them great possibilities for good or evil; as a consequence they have needed very careful handling, and have called forth the best efforts of the Council so as to secure for the Federation the fairest and most equitable conditions, consistent with justice to all concerned.

In this connection there are two or three matters under discussion which vitally affect the good of our craft. We, however, cannot give further particulars until they have been completely discussed and adjusted. Soon as this has been accomplished members may expect to have full particulars sent them by the Secretary of the Federation. It may, however, take a few months before they can be finally settled, as the negotiations may be prolonged owing to inherent difficulties, but no trouble will be considered too great by the members of the Council if they can but arrive at conclusions satisfactory to all concerned.

Unfortunately the Joint Industrial Council under the Whitley scheme seems to hang fire. At present the officials of

the Government Department concerned are considering in what way they can amend and improve the scheme put before them. Probably they may find a solution for their own queries in the course of time, but in the meantime the trade waits the completion of the scheme and hopes that when it appears it will be as perfect as it is possible to make it.

The Vice-President of the Federation is visiting America during the Autumn months. The Council, therefore, took the opportunity of sending a fraternal message to the American process engravers as represented by their Association, and asked their friendly co-operation in considering matters that may be found of great value to both Associations, which must have a great many interests that touch at various points, so that by an exchange of views and friendly discussion information may be given that shall be for the benefit of both the English and American process engravers.

We shall look for Mr. D. Greenhill's return and report of his conversations with much pleasurable expectation, and have no doubt he will have something to tell us that may be not only of interest but real value. In the meantime we wish him every success in the mission he has undertaken, and trust he will have a good journey and a happy return.

The fruits of the President's journey to the North on behalf of the Federation work are already ripening, for so successfully did he carry out his mission that practically the only houses in the whole of that district who were outside the Federation have now joined up, so that gradually we are nearing the 100% membership. Perhaps by the time the next Annual Meeting comes round we

shall be able to report such a desirable consummation.

The Secretary reported that the whole of the subscriptions for the remaining half year had been received, with the exception of those of two small firms. He was instructed to communicate with these firms and remind them of the amounts due.

It seems surprising that any firm who cannot but realise the great work done by the Federation, should fail to send in the dues at the date they are usually collected. The Federation scheme has been such an inestimable blessing throughout the period of the War, that everyone should be only too desirous of not only maintaining it but of carrying it further if that be possible.

There has been a fair amount of correspondence, mostly raising questions of charges for very intricate problems. It is amazing how many and varied are the designs sent the process engraver for reproduction, and some of the very complicated ones give extremely good effects and show that the artists are getting so much at home with process work that they are preparing drawings in which practically every class of work is incorporated — work such as it would be impossible to provide for in any scale. The Council will be pleased at any time to give advice or help in the matter of charges, if application is made to it.

It is matter for congratulation that this spirit of emulation is abroad, for it is all to the good and not only gives great pleasure to those for whom these designs are prepared, but brings out the best talent of the engravers and raises the status of the trade, not only from the illustrators' point of view, but also that of the general public.

Those members of the Federation who were sufficiently interested in the extensus of the Caxton Home at Lympsfield, and who so nobly subscribed some £1,300, will be pleased to see the notice of the laying of the foundation stone on Saturday, September 20th.

It will be a pleasure to see every one of the subscribers present at that great function to support the Lord Mayor in the good work he has undertaken.

How Customers are Lost.

LAST year, a firm gained 500 new customers and lost 360. This was a net gain of only 140.

This fact set the Managing Director wondering. Why had he lost 360 customers and why had his competitors lost 500.

He made a careful investigation, and here are the results :—

- 86 customers were lost by carelessness in shipping dept.
- 54 customers were lost by stringent credit policy.
- 61 customers were lost by rude or careless salesmen.
- 40 customers were lost by unsatisfactory goods.
- 36 customers were lost by mis-statements of salesmen *re* terms and discounts.

As¹ a result of this investigation, the shipping department is being re-organised; the credit department is being at least made more courteous, and the salesmen are being trained in the art of KEEPING customers, which is a large part of the art of salesmanship.

Laws of Business.

THERE are laws of Business as well as laws of Nature. You can ignore these laws if you like, but you can never escape them.

No man can *break* a law. He can only ignore it or defy it, in which case it is he who is broken, not the law.

A man who jumps off a high building does not *break* the law of gravitation. He only discovers it. It is he who gets broken, not the law.

A man who tickles a mule's hind leg does not break the law of retaliation. He only discovers it.

In the same way an employer may disregard the law of loyalty, and as a result he gets punished by having his workers go on strike.

A worker may disregard the law of service, and as result he will find himself discharged.

The secret of quick success in life is the finding and following of the laws of business.

A firm that is on the right lines—that obeys the eternal laws of industry and human nature—is bound to succeed, because it has the whole universe on its side.

Also it succeeds with less effort—less friction—less cost—less delay. It is based on the solid rock of fact, not on the shifting sand of opinion and experiment.—From "*Efficiency*."

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spotting brush will replace it, almost without showing any mark at all. Methylated spirit of full strength should not be used. This would shrink the piece of film too much, and would make the cure worse than the disease.

Standardising of Colour Process Inks.

By W. J. Wilkinson.

ONE acquainted with the printing of four-colour process plates to-day realizes the great desirability of an effort on the part of the manufacturing photo-engravers to standardise process inks to such an extent as to make more perfect results possible. Practically every manufacturing photo-engraver in this country has adopted a scale of colours of his own choice, which he uses with more or less regularity in the proving of his process plates. There is a great variation in these selections, and the result is that, when several sets of plates made by various concerns have to be printed on one sheet, the printer is confronted with the greatest of difficulties, and it is quite impossible at times to match any of the proofs in an attempt to strike happy mediums between the various shades of inks used.

It has been a habit in the past for printers to supply the engravers with inks which will ultimately be used on a certain job. In many cases the ink bought by the printer is purchased in large quantities, often at far lower prices than good process inks can be obtained for.

The underlying principle of the three and four-colour processes has been practically lost sight of; that is, that these processes are photo-mechanical, and that the inks to be used to reproduce copies in three and four colours should be adapted to a scientific standard— and not merely be “yellow,” “red,” and “blue,” but yellow, red and blue of particular hues and shades which will work harmoniously together, and at the same time reproduce the copy with the least possible hand work on the plates.

The four main factors in the selection of process inks ought to be: first, the shade or colour; second, the permanency of these inks when exposed to daylight; third, the consistency; and fourth, the printing qualities. The shade is of the greatest importance. It seems to me that the American Photo-Engravers' Association should appoint a committee to determine by scientific methods the shades which should be standardised and should be universally used all over the United States to reproduce copies, either in three or four colours. Only then will the engraver get the most perfect results, and he will incidentally save himself the trouble of re-etching the plates to a greater extent than is necessary when the proper shades of inks are used.

As far as the permanency of inks is concerned, it is a known fact that several of the inks made of aniline dyes are not permanent, and will fade when exposed to the daylight. How often have we seen posters of which the entire red has disappeared and a sickly picture, consisting of blue and yellow, remains! There is no question but that inks can be made in any shade which has permanency and which will not fade when exposed to sunlight. It is therefore evident that only such inks should be used.

As to consistency, a great difference in the appearance of a picture can be made with too thin or too heavy ink. If the plate is proved with thin ink, a large quantity of it has to be used in order to bring out the solids properly; we will find that in the deeper shadows the plate will be almost completely filled up,

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Inks should be of such consistency that they will have the maximum amount of covering strength when the plate is merely given a thin film, without making it necessary to pile on more ink than the plate will properly carry. Due to the fact that inks of similar consistency cannot be used on the various types of printing machines, it becomes evident that it would be desirable to manufacture inks of such consistency as is proper for the various machines used for printing purposes. Proving is universally done on platen presses and heavier inks should be used than those for flat-bed presses. And again, this ink will be considerably heavier than the ink used on rotary presses. In my estimation, therefore, three grades of a consistency should be adopted to cover these three contingencies. There is no great difficulty connected with making inks of exactly the same hue and shade of slightly different consistency. If ink of the same consistency used for proving on a Universal press is used on the cylinder press, the printer will have great trouble in rolling the ink out and inking his forms; for this ink will be too thick, and there usually will be added some reducer. By adding this reducer the printer will also reduce the shade of the ink, and it is therefore necessary that the ink-makers produce an ink of exactly the same shade while of a softer quality. This pertains also to rotary printing.

The fourth and last requirement of process ink is that it should have the proper printing qualities, that it will produce all the shades of the plates without filling in, and interpret and reproduce the plates on paper exactly as they are, and the high-light dot show considerably larger than they appear on the plates.

I have written to the various ink manufacturers of New York City, asking their views on the subject. They tell me that they are very desirous of co-operating with the photo-engravers in order to adopt the proper standard for process inks. There are houses which carry from thirty to forty different shades of so-called "process" inks to-day for their various clients. In my estimation, intelligent co-operation would eliminate a great amount of trouble and tend to bring down the cost of process inks. I would suggest and move that the International Association appoint a committee consisting of various practical photo-engravers, who, together with representatives of the leading ink houses, work out the standardisation of colour process inks. After adoption of the proper shades, formulas should be distributed among ink manufacturers to be followed and used in the manufacturing of process inks; not only as far as the shades are concerned, but also as far as the consistency is concerned. It would save a large amount of money by supplying only standard inks to the manufacturing colour-plate engravers, and a great deal of hand work now necessary on plates could be eliminated.

Don't Despise Fun.

As a money-maker, fun is vastly superior to manufacturing or merchandising.

Two of the largest restaurants in London made only £46,000 profits last year, while a single music-hall made £50,000.

George Robey makes three or four times more money than Lloyd George.

Harry Lauder makes as much in a month as most Managing Directors get in a year.

The Facts about Profit Sharing.

By Herbert Casson.

PROFIT SHARING! There seems to be an extraordinary interest in this subject, among employers and workers both.

I have been receiving many requests for information on it; and at almost every lecture some one asks—"What about profit sharing?"

It is very necessary to know the facts, as scores of firms have tried profit sharing and made a bad failure of it, while others have succeeded.

I have been studying the subject, off and on, since 1893. In those days I frequently met N. P. Gilman—the great advocate of profit sharing—a man who lived ahead of his generation.

Once, in 1894, I attacked Gilman in a public debate and scoffed at his profit sharing panacea; but he was very likely much nearer to the truth than I was, because at that time I was just out of college and packed full of ignorance.

To begin—profit sharing is not an experiment. We know beyond all doubt that it succeeds when applied properly, and that it fails when applied badly.

As far back as 1889, there were thirty-two American firms that shared profits. The oldest firm of profit sharers in France is the Maison Leclair, which has a business of painting and decorating.

As to who was first in Britain no one knows. It was probably that amazing man, Robert Owen of New Lanark, who was 100 years ahead of his generation.

Once a factory owner said to Robert Owen—"If my men liked, they could save me £10,000 a year, by better work and less waste."

"THEN WHY DON'T YOU OFFER THEM £5,000 A YEAR EXTRA TO DO IT?" Owen replied. That was in 1840. It was the first suggestion of profit sharing that is on record.

There have been many profit sharing failures. The main causes of failure are as follows:—

(1) Using profit sharing as a device to make workers content with low wages.

(2) Refusing to say beforehand what proportion of profits will be given.

(3) Treating the matter as an affair of charity, not business.

(4) Installing it as a weapon against trades unions.

(5) Applying it to large bodies or rank and file workers.

(6) Giving too small a proportion of profits to interest employees.

(7) Using it as a substitute for personal contact and co-operation.

(8) Starting it without a foundation of good-will and confidence.

(9) Making it too legal and complex.

(10) Paying in non-saleable stock instead of in money.

These are the ten rocks upon which profit sharing has been shipwrecked. You must beware of these ten rocks.

If I were asked to give an exact definition of successful profit sharing I would say—"It is a mutual agreement between a firm and its managers or employees, that after regular salaries and wages have been paid there shall be a certain percentage of profits, decided in advance, paid to managers or workers, or both. This shall be an EXTRA payment, as a reward for extra efficiency."

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It is not charity. It is not kindness. It is not a sharp Pecksniffian trick to keep workers contented. It is a wise, hard-headed, business agreement. It is fifty-fifty. Each side gains. No one loses. The workers produce more than they need to do, and they get a fair share of the extra bit—that's all.

Profit sharing differs from piece-work, because it is based upon NET profits, not upon output.

It enables workers to take the firm's point of view. It makes them partners. It increases their self-respect as well as their pay.

EXTRA PAY FOR EXTRA LOYALTY—that is the keynote of successful profit sharing.

When Leclaire suggested it to his forty-four workmen, in 1842, they were suspicious. They could not understand it. Accordingly Leclaire, being a Frenchman, proved his sincerity in a dramatic way.

At the end of the year he called his forty-four men into a room and threw upon a table a 10 lb. bag of gold. He poured the golden pieces upon the table and said—"This is not mine. This is yours." Every man received about ten guineas in gold. That was proof.

As to how much of the net profits should go to the workers, there is a wide difference of opinion. Every one agrees that it must be at least 5 per cent.

The Miller Lock Co. pays 46 per cent., and pays every month.

The Bing and Bing Co. pays 35 per cent. to managers and permanent employees only.

The A. W. Burritt Co. pays 6½ per cent. on wages, and every worker who shares profits agrees to share losses as well. In sixteen years there have been no losses.

Many retail shops pay Departmental Managers from 5 to 15 per cent. of the profits of their Department.

N. O. Nelson, who has sixty-one grocery shops, pays 25 per cent. of net profits to employees.

Filene, of Boston, takes a certain percentage of profits and gives half to managers and half to his 2,500 workers.

In British firms, the average profit sharing amounts to 5½ per cent. of wages.

Speaking generally, profit sharing is most successful when applied to Managers, Heads of Departments, Salesmen, Foremen, and small groups of High-grade Workers.

It is not likely to succeed when applied to a large body of low-grade workers.

It can only be effective when there is a high degree of intelligence, confidence and loyalty.

Wherever there is a spirit of good-will and efficiency, profit sharing comes as a matter of course. It binds a company together. It is not only the L. S. D. result of a good year's work. The market rate of wages is not supposed to pay for loyalty and personal interest. It does not pay for enthusiasm. It pays for a certain amount of work and no more.

Therefore, when managers and workers take the interest of partners they should be treated as partners. They cease to be employees. They are responsible members of the firm.

Profit sharing is much more than chucking a tenth of surplus profits to the workers. It is much more than a form of insurance against labour troubles.

It means giving the workers a bit of the glory as well as a bit of the gold.

It means abolishing the CASTE system of industry, which regards Directors as Brahmins and workers as pariahs.

It means more brain-power and heart-power, as well as body-power.

It means that a firm becomes less like a despotism and more like a family circle.

Profit sharing means MANAGEMENT sharing. It is a beneficial, profitable and inevitable development; and the sooner you move towards it, the better.

The latest and best book on the subject is "PROFIT SHARING," by five authors. Published by Harper & Bros. Price 11/-, post free.

Over-printed P.O.P.

According to Professor Namias, prints on P.O.P. which are a little over-printed can be remedied by being immersed without washing in a solution of half-an-ounce of common salt in five ounces of water, to which a dram-and-a-half of hydrochloric acid has been added. They are left in this form from five to ten minutes, and are then rinsed and toned in a combined toning and fixing bath. If they are much over-printed, from one to four grains of copper sulphate may be added to the above solution; the more sulphate the greater the reduction. The action is a very rapid one. If the prints are to be separately toned and fixed, the following solution, which is at once a reducer and a toner, may be employed:

Gold chloride	2 grains
Common salt	40 grains
Hydrochloric acid	20 minims
Water	10 ounces

If the tone obtained in this bath is not satisfactory, the print, when sufficiently reduced, may be rinsed and transferred to an ordinary toning bath.

—*American Photography.*

Foundation Stone Laying of the Process Engravers' War Memorial.

THOSE who subscribed so liberally to the extension of the Caxton Convalescent Home, which is to form the Process Engravers' War Memorial, will be pleased to know that the Rt. Hon. the Lord Mayor will lay the Foundation Stone on Saturday afternoon, September 20th.

Limpsfield is a beautiful place for a day's outing, and we are persuaded that everything will be done to make the occasion one of deep joy. Therefore, we shall look forward to the pleasure of meeting a large gathering of our craft on that occasion.

A VERSATILE PROCESS MAN SEEKS AN OPENING.

REFERENCE to our Advertisement Columns will give particulars of an all-round Process Man seeking a larger sphere of influence.

The advertiser, we understand, has had a splendid training in all kinds of Process work both in England and on the Continent, and has kept himself in the forefront of the craft of the Process Engraver. He is open to take a position either in this country or in any other where his knowledge and experience will be of use in building up a sound business connection, and we believe that anyone that can make full use of his services will find it to be advantageous. He is also a specialist in photogravure.

48 Hours a Week Bill.

Text of the Two Measures Promised by the Premier. How New Time Rates are to be Decided.

THE Bills promised by the Prime Minister in his speech, the other day, for the regulation of hours of employment and the constitution of a Commission to fix minimum rates, have been issued.

The first Bill provides that the number of working hours, exclusive of recognised intervals for meals, shall not exceed 48 per week.

In cases, however, in which organisations of employers and workers in any class of employment have agreed that the hours shall be higher or lower than 48, the Minister may make a special order to that effect. He may also vary the hours in special cases in which he thinks it advisable, even without any application from the parties concerned.

Any hours in excess of the statutory week shall be regarded as overtime, and regulations, fixing the extent to which the conditions under which overtime may be worked, shall be made either by the employers' and workers' organisations or by the Ministry.

THE OVERTIME RATE.

Payment for overtime shall in no case be at a less rate than 25 per cent. in excess of the normal time rate.

Any person who contravenes any of the provisions of the Bill, or any order made under it, will be liable to a fine of £10, and the Bill provides that duly appointed officials of employers' or workers' organisations shall be competent to prosecute or defend any information arising under the Bill.

The Bill does not apply to domestic

and outdoor servants, master seamen, or seamen apprentices, persons whose hours are regulated by the Coal Mines Acts, and persons employed in agriculture, horticulture, and forestry.

COMMISSION ON TIME RATES.

The second Bill constitutes a Commission to inquire into and report on minimum time rates of wages. The Commission will be set up for the purpose of—

(a) Inquiring into and deciding what such minimum time rates of wages should be, regard being had to the cost of living in the various districts, and other matters which appear to the Commissioners relevant.

(b) Inquiring into and making recommendations as to the methods and successive steps by which such minimum time rates should be brought into operation, and the machinery by which they may be varied as and when occasion requires.

(c) Inquiring into and making recommendations as to the granting of exemptions from the rates so fixed in the case of infirm and incapable workers, and in other exceptional cases, and the methods by which such exemptions should be granted.

(d) Making recommendations as to the legislation necessary for such purposes as aforesaid—whether by amendment of the Trade Boards Act, 1909 and 1918, and other enactments relating to minimum rates of wages or otherwise and what amendments of the law, if any, were desirable.

Reminiscences of Process in America.

By Stephen H. Horgan.

TWENTY-FIVE years ago photo-engraving could scarcely be dignified by the name "business"; neither was it an indoor sport. It was a haphazard occupation with all the fascination of a gamble. The shop had to be in an insanitary top loft, for no substantial building would house the ill-smelling photo-engraver. Its product was being recognized as a beautiful addition to the graphic arts, yet the processes were only in the experimental stage. It needed a friend, and found it in "The Inland Printer," for in this journal it was given a department where its problems could be discussed, in the hope that its methods could be standardized and the business developed.

The writer was given charge of that department, and now Editor Hillman asks me to recall briefly some of the history made during the past quarter century. A mere record of the battles fought during that period would make a book, and a few of them will be noticed here:

Henry O. Shepard took an interest early in photo-engraving. He attended the first meeting the National Association of Photo-Engravers, held at Buffalo, and gave them such practical encouragement and advice that he received the following letter:

Mr. Henry O. Shepard, Cleveland, Ohio, October 11th, 1897, President of The Inland Printer Company, Chicago.—Dear Sir,—By resolution passed at its recent convention, the National Association of Photo-Engravers desires to express its appreciation of your efforts exerted in its behalf, and hereby extends its thanks to you for the part you have so kindly taken

in its formation and the forwarding of its interests.—Truly yours, Samuel R. Mason, Secretary.

Mr. Shepard's zeal to forward the interests of the photo-engravers involved him in litigation. The story, in brief, was this: Several queries came to the Process Engraving department regarding a company that offered all publishers and printers an engraving outfit complete for \$25. With the outfit came instructions by which, if followed, the circular said: "an inexperienced boy of fifteen could alone make eighteen copper half-tones, each fifteen square inches in size, in a single day." The present writer treated the offer as a joke and concluded by stating: "Such concerns as this are likely to do business while the saying of the experienced P. T. Barnum holds true that there is a fool born every minute."

Mr. Shepard was so pleased with the article I wrote that he came to New York and rewarded me with a fine dinner at the Astor, for he said that one of the purposes of "The Inland Printer" was to protect the allied printing-trades. The concern went out of business and sued Mr. Shepard for the alleged value of its business, and, by a miscarriage of justice, won its case; but the verdict was reversed by the Appellate Court.

This was but one of the many fights which "The Inland Printer" made for photo-engravers in those days when the industry was unorganized and needed a friend to battle for it. One iniquity tackled at that time was the discrimination against engravers in the copyright law. Some of the leading illustrated publications were not only having their engravings

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made abroad and electrotyped abroad, but they would escape the payment of proper duties by importing the unbacked copper shells as "scrap copper." This was due to a flaw in the copyright law which permitted "engravings, cuts and prints" made outside the limits of the United States to be protected by American copyright, while "photographs, lithographs and printed matter" had to be made in this country in order to be entitled to American copyright.

"The Inland Printer" began this fight with Congress, single handed at first, and kept it up for fifteen years, until protection for American engravers was won, and President Roosevelt signed the new copyright law July 1st, 1909.

Another source of danger to the photo-engraving industry against which "The Inland Printer" has acted as a shield is that of patent infringements. There have been many of these cases. Just now there is a serious one before the federal courts that will be told about when the case is decided. One of the earliest of these cases was over the Kurtz patent. This case retarded the progress of three-colour block making and printing, for Kurtz received a patent in 1893 for the printing of single-line tints over each other at pre-determined angles to avoid a pattern. Legal threats for damages had been made against all the leading colour printers and engravers. "The Inland Printer" showed how Richmond's Grammar of Lithography, of 1886, instructed lithographers to use the sixty-degree angle for crossing line tints in three colours. Albert got a patent for the same thing in 1891 and Du Hauron another in 1892, so the Kurtz scare was knocked out and three-colour block making and printing went ahead.

Many worthless inventions have been held up by the Process Engraving department before the trade was given a false alarm of their being a possible menace or capital was wasted upon them. One company from Russia was going to print any number of colours at one impression after floating a heavily capitalized stock company here. When the Process department said that "their results looked as if they had been printed with a rubber stamp," they claimed their prospects were ruined in this country and threatened suit for adequate damages. Later this same concern collapsed in London with much loss.

The sad thing in many cases was when the inventor really believed in the value of his novelty to the trade and by his earnestness would deceive many. It was not so with promoters and process fakers—they were out for blood and they usually got it, leaving a long trail of wounded behind them.

There is space here for only one case which the war makes of interest: The writer was sent for by the "New York Herald" to give an opinion. A promoter was about to sell the owners a method of half-tone engraving by which the same plate would have thirty dots to the inch in the high lights and sixty dots to the inch in the medium shadows. I met the typical Prussian professor promoter. I explained to him and to the "Herald" manager that the idea was old in this country. The professor was delighted, he said, to meet a man with my knowledge, and asked if I would meet him at the Waldorf the next morning. By next morning's mail I received a note from Herr Professor stating that he was taking that morning's steamer back to Germany as he had sold the method the night before

for \$50,000. Later, the buyer, a silk merchant, and fellow countryman of the professor, sought me out for an opinion. He nearly cried when he found he had been "stung" and offered me a big commission if I would help him sting some one else.

And so, though the Process Engraving department has always felt the serious responsibility it bore to the photo-engraving industry, it has had some fun as it went along. During the past twenty five years process work has grown from tottering infancy to full manhood, thoroughly organised and fully recognizing that it is "An Art, Not a Manufacture." Its progress is a wonderful story that must be left to a future article.

The Ladder of Promotion.

IF you are an employee and if you are ambitious, here is a little ladder of promotion which will help you to climb higher. Once you climb these rungs, the others will be easier.

- 1st Rung. Keep a cheerful face.
- 2nd Rung. Always give a straight, quick answer.
- 3rd Rung. Work hard and happily.
- 4th Rung. Supervise your own work.
- 5th Rung. Be absolutely accurate and reliable.
- 6th Rung. Have a definite purpose.
- 7th Rung. Help your fellow workers.
- 8th Rung. Study the firm's business as a whole.
- 9th Rung. Ask for more responsibility.
- 10th Rung. Suggest better methods to your chief.

How "Chapel" got its Name.

The Old-Time Penalties.

WE hear about the pressroom "Chapel" very frequently, but how many are there amongst us who know how the term originated.

Here goes :—

The chapel, or shop organisation, is generally believed to have derived its name from the fact that the first printing press in England was set up in a chapel in Westminster Abbey by William Caxton, the first English printer. In those days the oldest freeman was the "chairman" of the chapel. By-laws were made for the government of members and a breach of discipline brought the penalty of a solace. The penalties were imposed by a vote of the chapel. The following were the customary solaces in the ancient print shop and they range in price from one shilling to one penny.

Swearing in the chapel, a solace.

Fighting in the chapel, a solace.

Abusive language, or giving the lie in the chapel, a solace.

To be drunk in the chapel, a solace.

For any of the workmen to leave his candle burning at night, a solace.

If the compositor let fall his composing stick and another take it up, a solace.

Three letters, and a space to lie under the compositor's case, a solace.

If a pressman leave his blanket in the tympan at noon or night, a solace.

If the delinquent proved obstinate or refractory at the price set by the chapel, they solaced him.

And this was the way they did it :

"The workmen took him by force and lay him on his belly athwart the correcting

stone and held him there while another of the workmen with a paperboard, gave him 10-1, and a purse, viz., eleven blows on the buttocks ; which he laid on according to his own mercy. For tradition tells us that about fifty years ago one was solaced with so much violence that he presently effused blood and shortly after died of it."

The latter day parallel for this penalty is the practice of bumping offenders on a wet sponge, a form of punishment that has been abolished in city offices but still survives in some of the smaller offices of the country.

Salesmen's Excuses.

"**T**ALK about six-hour days," said a Midland Sales Manager. "If I could get my travelling salesmen to work six hours a day, we could sell 50 per cent. more goods.

"A Salesman is left to himself and he has dozens of perfectly good excuses for not working. His actual working time, selling goods, is probably twenty-two hours a week.

"A salesman believes that it is no use to try to sell goods on Monday morning, because it is the beginning of the week.

"Neither is it any use to try to sell goods on Saturday morning, because it is the end of the week.

"Neither is it any use to try to sell goods (1) on a rainy day ; (2) before 11 o'clock ; (3) at lunch-time ; (4) after 5 o'clock ; (5) when the customer is very busy ; (6) when he is out of temper ; and so forth.

"Now, all these beliefs are imaginary ; and if salesmen could only shake them off they could do 50 per cent. more work and raise their own pay accordingly."

[If this is not true, will some travelling salesman please send me a reply to it?—
EDITOR.]

The 'Times' (Weekly Edition) New Departure.

WITH the issue of the "Weekly Times" for the last number in July, the proprietors made a step forward in the history of illustrated journalism, not that they had anything entirely new to place before their public, but they had a new departure so far as popular price journalism is concerned.

The new feature, eight pages of rotary photogravure illustrations in a 3d. journal, certainly is a great advance upon anything hitherto placed before the public.

This illustrated section, printed by the Intaglio process, is the result of experiments carried out at Printing House Square during the past five years, interrupted to some extent by the war. These up-to-date news pictures, produced on fast rotary machinery, by the latest method of illustrative printing, will doubtless be received with considerable interest at home and abroad.

This interesting development will be watched very closely by other caterers for the support of the public, and it will be interesting to watch developments that may take place in the near future.

The eight pages of illustrations is in addition to the 36 pages of news the issue generally carries. It is very artistically produced, four pages printed in the sepia coloured ink and four pages in the blue, the two colours so generally favoured by the machine photogravure printers.

The whole of the work is exceedingly well done from the preparation for the engraving of the rollers to the finished printing, and speaks well for the efforts that have been made by the proprietors in order to produce up-to-date illustrated journalism in the best possible manner to meet the growing taste of the public.

THE BOOKWALLER BALL PRINTING COMPANY, of Indianapolis, send us a "Bit of by-play containing a world of truth," entitled "Passing the Buck." The story of—it isn't me its the other fellow. It is as well got up as it is well written. With it came several specimens of their printing all showing the same scrupulous care in production, making an effective appeal to the recipient and incidentally remarking that they cannot "pass the buck, because they do it all—the drawing, the block making, and the printing. Evidently this firm has the ability as well as the will to do everything in the best possible style.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS

The Process Engravers' War Memorial.

The Lord Mayor lays the foundation stone at the Caxton Home of the Printing and Allied Trades at Limsfield.

ON the beautiful afternoon of Saturday, September 20th, the Lord Mayor of London (Sir Horace Brooks Marshall, P.C., M.A., LL.D.), who was accompanied by the Lady Mayoress, and supported by a goodly gathering of those interested in the matter, laid the foundation stone of the War Memorial Wing of the Caxton Convalescent Home at Limsfield. Included in the company of over 300 gathered to do honour to the occasion, were: Sir Arthur Spurgeon, Sir Harry Brittain, K.B.E., M.P., Bishop Ridgeway, Messrs. C. W. Bowerman, M.P., C. J. Drummond, M.B.E., J.P., E. J. P. Benn, C.B.E., R. T. Billing, J.P., W. F. France, J.P., Joseph Mortimer, A. Dargavel, H. C. Bolton, E. T. Rudd, H. Wilson Howes, and E. Briscoe and J. J. Deasy (Trustees). We, however, missed some well known faces we had expected to be present, some of whom sent letters and telegrams regretting their absence, among whom were: Viscount Burnham, Viscount Northcliffe, Sir George Riddell, Bart., Sir Wm. Treloar, Bart., Sir Campbell Stuart, Sir Wm. R. Smith (Sheriff), and others.

Miss Rita Fowler, in her most charming manner, presented a bouquet to the Lady

Mayoress, after which a procession was formed to the site, where, in opening the proceedings, Mr. C. J. Drummond outlined the scheme for commemorating the sacrifices made by officers and men in the printing and allied industries in the Great War. Continuing his remarks, he said: "This Home is essentially a printing trades home. Originally conceived and started by a few journeymen printers, it has grown and become very successful and we are very proud of it. Originally the Home was for men only, but of late years it has provided successfully for women who have come into the industry. It is the only Home exclusively devoted to the use of members of the printing and allied trades, using this phrase in its widest sense. It includes printing craftsmen, journalists, process engravers, and anyone in any way associated with the industry. Following a conference of master printers and trade associations in 1915, it was unanimously resolved to erect a new wing as a memorial of the printing trades response in the Great War, and to place therein a roll of honour of those officers and men who fell in the nation's service. The appeal for funds has been well responded to, and sufficient has been raised

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to justify the Committee in proceeding with the building. A further sum is still required to complete the memorial. Among the allied trade associations that have heartily taken the matter up is the Federation of Master Process Engravers, represented here to-day by Mr. Dargavel, who have raised the very generous sum of £1,265, and propose endowing a ward in the building to the memory of their members." Mr. Drummond expressed regret at the unavoidable absence of three of their trustees, Sir Geo. Riddell, Sir Rowland Blades, and Mr. S. H. Caslon, but was pleased to see the two senior trustees, Mr. E. Briscoe and Mr. J. J. Deasy present. They had held their positions almost from the founding of the Home.

After a short religious service by the Rev. Gerald G. Richards, Rector of Limpsfield, the Lord Mayor (having been handed a silver trowel by the architect) proceeded to lay the stone, on which was the following inscription: "Printers' War Memorial.—This wing was erected to commemorate the supreme sacrifice of members of the Printing, Bookbinding, Publishing, Stationery and Kindred Trades who fell in the Great War: 1914-1919." Having spread the mortar, and assisted the architect to adjust the stone thereon, Sir Horace said: "In the name of the Great Architect of the Universe, the God and Father of us all, I declare this stone to be well and truly laid."

Mr. C. W. Bowerman, M.P., thanked the Lord Mayor for his presence among them that afternoon. He had assisted at a function that would help to keep in memory the men in the printing and allied trades who had died in order that we might live. He felt sure that his Lordship's coming there that day would be one of his brightest memories. He had done the Com-

mittee a great honour, for which he sincerely thanked him.

Sir Harry Brittain, in seconding the vote of thanks, said he was doing so in the absence of his friend, Sir George Riddell. He had travelled the seven seas and met many burgomasters and mayors, and he had found that in the mind of each and all the Lord Mayor of London took rank as the great civic chief of the world. He had seen the Lord Mayor at many public gatherings, but to-day he had seen him in a new role. When his time as head of the City of London expired, he need have no hesitation in engaging in the bricklaying business. In supporting the vote of thanks he desired to associate with it the name of the Lady Mayoress. The vote was carried by acclamation.

The Lord Mayor, in reply, said: "It is a great pleasure and satisfaction to me and the Lady Mayoress to take part in your proceedings to-day. I am not a printer. I belong to one of the kindred trades. But I do feel that this particular institution is one that is worthy of the sympathy and support of every member of the printing and kindred trades. We have heard much recently of the value of a sovereign. What strikes me in connection with this institution is the value of the penny. It is a humble coin, but has assisted in the creation of great institutions, and the penny collection in aid of this Home has been a great success. Whilst it is a privilege to some to help in another way, we cannot do without the aid of 'fathers of chapels' and their congregations. During the war the printer has done valuable service, and he has also filled another part. There is a story in the history of the Great War that will live longer than any product of the printers' craft, for it is engraved in the hearts



The Lord Mayor lays the Foundation Stone.

and affections of the people of this country. It is a chapter that tells of the sufferings borne and sacrifices endured by our sons and brothers on the battlefield, and the printers have won their title to an illustrious page in that chapter. More than 1,500 of them in London alone have given their lives, and to-day we commemorate the supreme sacrifice they have made. Whatever may be said of some memorials, this memorial is one that is not open to criticism, and I think that if those craftsmen who have laid down their lives could have been consulted, they would have said : "Let our part in the turmoil and suffering of the war become the means whereby our friends and colleagues who may be broken in health may find recovery and happiness in some beautiful and peaceful Home that may be erected for that purpose." (Applause.) He would have great pleasure in handing the treasurer, on behalf of himself and a few friends, a cheque for three hundred guineas towards

the good work they had undertaken.

A group photograph having been taken the party adjourned for tea in the spacious dining hall, which was filled to overflowing. On leaving the Lord Mayor and Lady Mayoress were given a hearty "three cheers."

The afternoon being one of those beautiful Autumn days that come to our clime at times, opportunity was taken by the company present to inspect the Home and grounds, and many expressions of delight and approval were heard as to the arrangements of the institution.

The Caxton Home Committee have arranged a Grand Matinee Concert in aid of the War Memorial Fund at The Great Central Hall, Westminster, S.W., on Saturday afternoon, November 1st, at two o'clock. Tickets and all information with regard to this effort will be supplied by the Concert Secretary, Mr. G. C. Josland, or the Secretary of the Home, Mr. S. J. White, at 3 Cursitor Street, E.C. 4, and we bespeak for their effort a record attendance

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

President—

MR. ANDREW DARGAVEL,
John Swain & Sons, Ltd.,
Shoe Lane, E.C. 4.

Vice-President—

MR. D. GREENHILL,
The Sun Engraving Co., Ltd.,
Milford Lane, London, W.C. 2

Treasurer—

MR. EDWARD W. HUNTER,
The Sun Engraving Co., Ltd.,
Milford House,
Milford Lane, London, W.C. 2.

Secretary—

MR. G. B. MANLEY,
Clarence House,
24 Martin's Lane,
Cannon St., London, E.C. 4.

Telephone: 5596 Bank.

Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work and at Play.

SEPTEMBER being the great holiday month of the year, it has been necessary to hold but one meeting of the Council during that period, and even at this meeting the work was anything but difficult. Therefore our report of the work done must necessarily be very restricted.

The members of the Council and the office staff have taken the opportunity of enjoying a well-earned rest, and so prepare for the winter's work, which looks like being one that will call forth the best thought and care of every one connected with the trade.

Questions relating to the new Insurance Act have received careful attention. It was, however, found that process workers are affected only to a small extent and in such a way that no general rule can be laid down. Should, however, individual members have queries raised, the Council will be pleased to consider the particular question and give an opinion on the matter.

One member of the Federation has been called upon to pay amounts under the "unemployment section" of the Act so far as his mounters are concerned. The Council would be glad to know if other members have had such a demand made upon them by the Insurance Commissioners, for there is a firm belief that such a claim cannot be substantiated for process workers.

A question having arisen between one of the Federation members and the officials of the Amalgamated Society, the President was deputed to interview the parties and so restore harmony, a task most congenial to him and one in which we are pleased to say he has succeeded.

In another case, where the interests of a member were attacked by a Trade Union in a way that the Council felt could not be completely ignored, the member was instructed to take a certain course on behalf of the Council, and report results at a future meeting.

Quite a number of minor matters, some of which may hold germs of future negotiation, were carefully considered and decisions arrived at that were considered to be in the best interests of the trade; should development arise calling for further action the members of the Federation will be communicated with as may be needful.

The Council calls attention to a phase of the National Health Insurance scheme that has received but little attention, but as it may affect some members of the Federation it is printed here for their information. The Ministry of Health direct the attention of employers to the fact that by the National Health Insurance Act, 1919, the limit of remuneration up to which persons employed otherwise than by way of manual labour are liable to compulsory health insurance has been raised from £160 to £250 a year. Employers are accordingly required for the future to pay health insurance contributions in respect of persons employed by them under a contract of service as follows: For non-manual workers, where the rate of remuneration is over £160 a year, but not over £250 a year, may,

within a limited period and under certain conditions, claim a certificate of exemption, and on the grant of such a certificate the employer's contributions (3d. a week) are alone payable. Forms of application for exemption will be obtainable shortly at any Post Office.

The Trade Schools.

THE L.C.C. SCHOOL OF PHOTO-ENGRAVING, Bolt Court, Fleet Street, commenced its winter session on the 22nd September, and provides day classes for instruction in line, half-tone, and three-colour block making, from the negative to the finished product.

There are also classes for commercial photography, photogravure, collotype, and photo-lithography.

There is also a day junior school for lads, in which they can take a course of lessons preparatory to their entrance into the trade.

The evening classes embrace every phase of process work, and provide not only the means of producing a given result, but teach the technical side of the work, the why and the wherefore, so often overlooked in shop practice.

The Principal, Mr. A. J. Bull, M.Sc., will be pleased to give any information and advice to those designing to take up a course of study in this school.

THE POLYTECHNIC, Regent Street, commenced their classes on September 29th, and provide evening classes for half-tone and tri-colour process work, as well as commercial photography, catalogue illustrating. There are other classes for the allied trades, all of which are under capable instructors.

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There are also day classes for those desiring them. The fees and arrangements for these classes can be known by enquiry at the Institute.

THE COLLEGE OF TECHNOLOGY, MANCHESTER, provides a four-year series of classes in photo-mechanical processes, which are under the able conductorship of Mr. R. B. Fishenden.

Young process engravers in Lancashire and surrounding neighbourhoods have every opportunity of becoming experts in their calling, for every attention is given to developing the ability of the student to the utmost.

There is also a special day course for process engraving, under the guidance of Messrs. Fishenden and Garrett, the fees for which are £3/3/- for the course.

Full particulars can be obtained at the College of Technology, Manchester.

St. Bride's Printing School.

WE have in previous years called attention to the excellent work done by the School, and commended it to the considerations of all who are interested in good craftsmanship in the printing trade.

It is a pleasure once more to bear testimony to the excellence of the work being done by the scholars in this School, for the specimens shewn in the Annual Budget are works of real merit and are not one whit behind a great deal of the work being produced by the leading houses in the printing trade.

The pretty girl shewn on the calendar is perhaps very slightly too highly coloured on the cheeks, otherwise it is a real work of art and would successfully take its place in competition with the great majority of calendars produced for the market.

The tri-colour half-tone printing is excellent work, and the scholars who have produced it may well be proud of their work and bid fair to become masters in their art.

We cannot enumerate the whole of the work being done, but whether it be display composition, offset, lithography, marbling in the bookbinding section, music printing by various methods, the preparation and printing of the "St. Bride's School Chronicle," or the production of the poster, they all shew the same desire to emulate the best, and both teachers and scholars are to be thoroughly congratulated upon the value of the work shewn, and promise so competely evident that there is a great future before many of the young men who are taking such deep interest in their work.

The classes have just commenced for the winter session, and now that so many young men have been released from the Army and are free to take up technical studies in their spare time, we feel quite sure that they cannot do better than interview Mr. J. R. Riddell, the Principal, and take his advice as to the course those studies should take. We are quite sure they will never repent having joined these classes.

It must be a source of great satisfaction to the Principal and Governors, as well as the teachers of the School, that their scholars shew so much proficiency, and we have pleasure in congratulating them upon the results shewn.

Pictures for Publicity.

Ir pays to advertise. This has been proclaimed from the mouths of advertising men who make money out of the fact, as well as from the stage, the pulpit, and the press—not to mention its emphatic indorsement by the success which many business men have made in this country by big advertising. It pays the photographer to advertise, for that matter ; but this story is rather about the extent to which he can, and does, connect with the other fellow's publicity, than about his own advertising. That may be discussed at some other time perhaps.

The point here to be emphasized and remembered is that pictures, good pictures, pictures that show the thing photographed at its best and most beautiful; are about the best possible advertising for anything whatsoever. Recognition of this fact, it is true, has led many business men, in many lines, to use pictures of their wares as a means of selling ; but there is a use of pictures which does not call for their employment, in the form of the actual prints themselves, but is more an advertising use, at the same time, than is the use of the original photographs.

Here is a striking example of the idea which arose not long ago in a certain city, where a handsome new theatre and office building was completed and thrown open for occupancy.

Some photographs had been made during the construction work for the general contractor, as the custom has become during the past few years. These pictures were of the various stages of the work, and were, of course, made for the express purpose of showing the progress of the construction, from the first

excavation made to the finishing touches on the side walls. But only a single photograph was made of the building in its finished state, and that was a general view, showing the structure as a whole. That completed the contractor's need for the photographer, and the photographer, who was familiar with this sort of work, realised it.

However, fortunately, he had some imagination and initiative of his own ; and he wondered if there might not be some opportunity for further photographic work around this fine building. He consulted the manager of the theatre, and made arrangements with him for pictures of the lobby and interior ; but that did not satisfy him. And it was while he was trying to work out a plan which would give him the amount of work he thought the building ought to furnish him that the thing fell right into his hands. It came from an advertising expert connected with one of the big printing companies of the city.

This chap had sold the company owning the building an idea, the sale of brains being his speciality, as he was rather proud of proclaiming. The idea was simple, and not absolutely and entirely new, as far as that is concerned ; but it was none the less valuable on that account. It was the production and distribution of a handsome booklet covering the building from basement to roof, with due attention to all of the interesting features to be found between. This included the theatre, with its roomy lobby, its beautiful interior, its rest and lounge rooms for men and women ; the floor occupied by a popular club ; the floors especially equipped for doctors and dentists ; the elaborate and

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up-to-date mechanical equipment in the basement, and a good many other things which, the advertising man thought, ought to be well worth describing.

For the photographer, who was fortunate enough to get in touch with this enterprising fellow, the idea meant just one thing, of course—photographs. It meant, both to him and to the advertising expert, the taking of a great many pictures throughout the building to illustrate that booklet; and the pictures were taken, in due season, under the instructions of the advertising man and with the greatest care, by the picture man, who knew and loved his work. They all “turned out” beautifully, and were among the most successful, as a lot, which the photographer had ever taken. The advertising man proceeded to get up his booklet, with the skilled attention to illustrations, to paper, type, and other details, which was his business; and the booklet was distributed on a scale which gave the best possible advertising to the building and to everybody interested in it.

Incidentally, it gave some first-class advertising to the photographer himself, after placing in his hands the substantial cheque which covered his services in taking the pictures referred to. As a keen business man, he was fully aware of the value of having his name on a booklet of this sort, going to a great many people with whom he might do business, and he accordingly used his customary plan of seeing that he received due credit for his work. There was no objection whatever made to this, and thus a nice bit of publicity for the man with the camera resulted.

This was not all, however; for he saw a further chance for business, and did not let the grass grow under his feet while he

thought it over. In fact, he lost no time whatever after he had his set of plates and had seen that the prints were good, in going after the various sub-contractors, material men, and the authorities of the club located in the building. He did this, moreover, with the consent of the advertising man, who had no objection to the sale of a few of the pictures as long as he had the exclusive use of them for his precious booklet.

The club took a full set of the pictures, showing the exterior of the building and views in its own quarters. Every sub-contractor took a picture of the completed structure and of the sections where his own work was shown; and the concerns which had furnished material and equipment, from brick to boilers, and from roofing to radiators, were likewise comparatively easy prospects for the sale of a big photograph of the building, and of views showing their goods in place.

In fact, the business which the photographer and his salesman managed to dig up in this way was nearly as good as that which he received in the first instance from his friend the advertising man, who hired him to take the first real pictures made of the building as a finished job. And, not unnaturally, he thinks a lot of that advertising expert; and, what is more, he makes no secret among friends of his intention to stick to him, and to take advantage of the lesson which he learned of the publicity possibilities of good pictures, entirely aside from their use in a news sense, or in a single advertisement.

“That chap has taught me something which I never realised before, or, at least, had never reduced to actual practice,” admits this picture man. “He showed me, as he showed a good many other people interested in that building, that

the proper use of good brains can be made to develop angles to a proposition which the ordinary bonehead never would see. If he hadn't taken the initiative in getting up that booklet, purely as a business proposition for the big printing house that employs him, nobody would have done it; the building would have missed a piece of advertising which pleased those interested immensely, and I would have missed some nice business myself.

"As it is, he did some constructive, intelligent work, of a sort which just goes to show what a really live man can do in the way of developing things from the mere germ of an idea; and he put money in the pockets of a lot of people who may never see him, although, knowing him as I have come to know him, I have a sort of idea that not many of them who are worth while will get away from him. And I am completely sold on the value of advertising in a way which calls for the liberal use of pictures."

The chances are that this photographer will not let the rest of the city's big printing houses and advertising concerns remain in ignorance of his existence, because he has seen a great light on the extent of the service which he can perform for them. And, inasmuch as some of them, heretofore dozing a trifle on the job, were themselves jarred into somewhat peevish and surprised wakefulness by the way their competitor slipped his handsome booklet over on them, perhaps they will not be as hard as they might have been to convince of the occasional value of a good photographer to the cause of up-to-the-minute publicity.

Cultivate houses of this sort. Big printers and advertising men are getting closer together all the time, in the develop-

ment of the vast business of business publicity. There are jobs without number where they need good pictures, and where they will be certain to use them if assured that the right kind of photographer can be had. And it is not good business to wait for them to investigate this matter on their own hook, because they may decide upon some other fellow's work, or to pass up pictures altogether; neither of which would be a consummation gratifying to a photographer who wants business himself.

---From "American Photographer."

Cement Stereos.

UNDER a patent by Mr. J. C. Grant, printing surfaces are made in pure Portland cement by casting on a flong, papier maché, or other matrix. If not properly type-high the cast block may be made so by casting plaster of Paris or the like on the back. In the process a flong or matrix, preferably made impervious to moisture by treating with oil or paraffin wax, is placed face-up on a glass or metal plate to which it may be made to adhere by a coating of warmed paraffin wax. Plates of glass or metal are placed round the matrix and the Portland cement is run into the space, the apparatus being agitated to eliminate air bubbles. A glass plate is placed on the top of the cement. When necessary, the block may be made type-high by casting on it a cement or plaster of Paris backing, the block being placed face-down on a level surface on which are placed type-high supports, for an oiled glass plate, which is applied to the back.

The Industrial League and Council.

THE Industrial Reconstruction Council and the Industrial League, who are amalgamating under the new title of the Industrial League and Council, have arranged a series of fortnightly Conferences dealing with the working of Whitley Councils set up in the following industries: Road Transport, Silk, Wool and Allied Textiles, Pottery, Building, and Gloves.

The first of these Conferences took place on 30th September, at 6 p.m., in the Hall of the Institute of Journalists, when Mr. G. A. Dutfield, J.P., and Mr. E. Bevin, J.P., representing respectively employers and workers in Road Transport, gave short addresses, the meeting was then open to public discussion.

A similar series of Conferences on Scientific Management will take place in the same Hall on alternate Wednesdays, at 5.30 p.m. The first of these commences on 8th October, when addresses will be given by representatives from the Managerial Staff and Workers of Messrs. A. Lloyd & Co., tin box and canister makers, Cheapside.

Whitley Councils affect nearly 5,000,000 workers, and all who are interested in the movement are invited to attend.

Admission to this series of Conferences is free; no cards are necessary.

Through the courtesy of the Corporation of London, a series of fortnightly Lectures on Industrial Problems will be delivered at the Guildhall, at 4.30 p.m., commencing on 7th October. The speakers will include Mr. E. J. P. Benn, Professor Ripper, D.Sc., C.H., Dr. Russell

Wells, the Rt. Hon. Sir Auckland Geddes, M.P., Sir George Paish, and the Rt. Hon. Lord Emmott, G.C.M.G., C.B.E.

Tickets for this series can be had on application to the Secretary, Industrial League and Council, 66 Victoria Street, S.W. 1.

1,000 Dollars for a Single Word.

World Trade Club offers Prize for Best Name for "Brit-Ams."

CAN you create the one word which will best denote the United States and all parts of Britannia? If so, you will be paid at the rate of \$1,000 a word. The World Trade Club of San Francisco has offered \$1,000 to the person who suggests the word which, in the judgment of the club's Metric Campaign Committee, is best adapted to world-wide use.

The competition is open to all human kind. The money will be paid to the winner at noon on 15th May, 1920, by a committee appointed by President W. H. Hammer, of the World Trade Club.

"Brit-Am," "Ambria," "Ambrittica," "Br-Am," "Sam-Bull" are some words thus far suggested. New names are constantly coming. The World Trade Club is offering this award because, in carrying on its present campaign for the adoption of metric units by all English-speaking people—the United States, the British Isles, Canada, Australia, New Zealand, Tasmania, United South Africa and so on—it was hampered by the lack of a single short word which would express all these.

The metric units of weight and measure are now used by all the world except "Brit-Am" or "Ambrittica"?

To the Photo-Engravers.

THE photo-engravers have adopted a new scale of prices for illustrations.

In the future small ones are to cost considerably more, but with the increase in size the cost per inch diminishes, so that large ones may be obtained at about the same rate as heretofore.

We are told that the new scale is the result of careful cost-finding, and that the new price of engraving is a matter of cost plus a reasonable profit. This is as it should be, and no fair-minded persons will expect a firm to do business any other way.

The photo-engravers wish the artists' co-operation in introduction of the new scale, and we see no reason to refuse. Cost, plus a reasonable profit, is the right way to do business, so right, in fact, that the artists are figuring their services that way.

BUT ARE YOU PHOTO-ENGRAVERS KEEPING GOOD FAITH WITH US? Is there one of you in your city who has applied the cost system to your art department? Are you willing to co-operate among yourselves on the price of engravings yet take unfair advantage of each other by figuring art work at less than cost? Is your art manager told, "Figure the art work as low as possible, we will make up our money on the blocks?" This kind of business won't do in the future.

We are not going to tell you what you should charge for art work, or even what you should pay your artists, but we do tell you that, to be square among yourselves, and to be square with the artists, you must figure art work at cost plus a reasonable profit.

It is surprising how few men can figure the cost of their product. To find the cost of art work in an art department charge a pro rata of the general overhead. This would put art expense on the art department and not on the engraving department. Otherwise there is an overcharge for cuts and an undercharge for art work. The customer who buys only engravings has to pay for the art work that another gets at less than cost. Is that business?—Reed Williams in "The Thumb Tack."

Talks about Work and Wages.

THIS series of talks, which are reprinted from "Ways and Means," are intended to carry home to the mind of workers the conviction that the prevailing unrest among the employees throughout the country is attributable to the want of a clear understanding of the question of cause and effect. If wages increase the cost of commodities must assuredly go up; if the price of commodities increase then wages must assuredly go up in order that the purchaser may be in a position to purchase as before, but this very increase is but the lever to further increase in cost of commodities, and so the game progresses with increase to counter increase till a crash comes.

This series of talks puts the problem in various ways, but always in a thoroughly clear, simple and interesting manner, just such as will tempt those into whose hands they may come to read them, and so lead them to ponder over the questions raised, which invariably tend to show that the only way in which increased wages may be successfully secured is by a more

thorough and intense understanding of the necessity of greater production.

We believe the dissemination of these leaflets broadcast must have a beneficial effect, and if they but sow the seed, and it should fall into good ground, it must eventually yield a rich harvest.

They can be procured from "Ways and Means," 8 Bouverie Street, E.C. 4., at 3/- per 100.

Labour Saving at the Camera.

A CORRESPONDENT asks whether there is not some way in which more half-tone negatives can be got out of a camera per day than at present. He says that in his experience the camera is in actual use only about 10 per cent. of the time, as each operator has a camera to himself and takes the negative right through. He considers this wasteful of time and money, and wants to know what other method can be adopted so as to secure a greater output per camera.

So far as we know there are but two lines upon which the work can be accomplished, (1) that stated above, and (2) the system by which a photographer spends his time fixing the copy on the plan-board, focusing and exposing the sensitized wet plates. A second photographer attends to the sensitizing of the plates and the development. He never leaves the spacious darkroom. A third photographer attends to the fixing, intensifying and drying of the negatives. This results in genuine efficiency and is the proper way to work when large numbers of negatives are required. The man at the camera never stains his fingers with chemicals, so the copy is not soiled by

him. It is better for the eyes of the second photographer to remain in the darkroom and work in the same light all the time; while the third photographer, from constant practice, becomes an expert at intensifying negatives. If a negative was not perfect when it passed through his hands it was made over.

It seems to us that both methods have their share of merit. The question is which of the two is most suitable to the work in any given studio.

Will our readers give us their experience in this matter, and suggest any methods of working they have found to be eminently successful.

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of our men leave, and nine out of every ten who leave come back again for their old jobs; the discharging of a skilled workman is so rare as to be an event.

OUR HAPPY AND EFFICIENT INSTITUTION BENEFITS THE SHAREHOLDERS.

Working together pays. It has paid us through more than three-quarters of a century of steadily growing business. We have been able constantly to better quality; we have been able to instal labour-saving machinery without opposition, for the men know that the machines are put in to aid them and not to take away their jobs. We have been able to lower production costs without sacrificing standards. We have made money.

Are not some of the so-called efficiency methods in handling workmen merely an attempt to substitute rule for understanding—to get a human machine because the employer does not know how to get a fellow workman?

We put our chief trust in men; they know it—and make good.

—From "System."

How We Keep Our Men.

The problem of holding men is one of the most acute of to-day's business problems. The two workers are as important to the small concern as its hundreds of men are to the big firm. Regardless of the type of business, this man problem affects every concern, and this firm's policy should be helpful to many.

JACK was an excellent workman—but a bit too fond of his glass of beer. Sometimes he held the beer to be more interesting than the grindstone, and then he “stopped out” for a day or two. By all the accepted laws of good shop management he should have been discharged, but the manager of our business discharged a man only when he could think of nothing else in the world to do. He never discharged a man in the curt way that often prevails.

Jack began to “stop out” more than he worked. At last the managerial patience broke. There was the choice of letting the man go or of demoralising the department, so the manager decided to discharge him.

“Jack,” he said—only first names are used about the factory—“this thing has gone on long enough. You'll have to clear out; you're discharged.”

Jack left. But on the next morning the manager, making a shop tour, found him again at his grindstone, working as though nothing had happened.

“Jack, didn't I discharge you yesterday? What are you doing here?”

“Ah! Yes, you did,” retorted Jack, “but if you don't know when you have a good man, I know when I have a good employer.”

Jack stayed, and he did not “stop out” again; I do not know how many grind-

stones he wore out in the many years of steady work after that time. Certainly he must have been a heavy contributor to the wall of discarded stones that encloses the factory land.

I give this incident not as an example of how to treat men, nor as a clever retort by which a workman held his job, nor, again, as a cheering thought to alcoholics; but as illustrating the spirit that has always existed in the relations between our heads and our employees. Jack was neither clever nor impudent; he was perfectly sincere in his idea that what he himself thought about his job was of equal importance with what his manager thought. He felt that he was working with the boss, and not for him.

In many establishments Jack would have been only “No. 520, discharged under rule so and so, for absence from duty,” and that would have been the end of him. But this manager knew every man in the works, and he had no rules. He did what he thought was right in each individual case. He felt Jack was worth another trial—and he was. Jack made good.

This manager is dead, but his ideas of man management are the ideas which prevail in the works to-day. They have proved their worth in practice, and we have never cared to change. We want a man, and not a machine; we think that unquestioned loyalty and an eager pride in the work are the most valuable qualities we can find in a man—and we get them.

WE HAVE LONG-SERVICE RECORDS WHICH SPEAK FOR THEMSELVES.

Before the war we had 19 men who had served us continuously for fifty years or more, 90 who served between

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forty and fifty years, 238 who had been here for between thirty and forty years ; 320 were in the class between twenty and thirty years, and 763 had been with us for more than ten and less than twenty years.

I doubt if this record can be matched by any other concern. But immediately one will ask, "Are you running a saw works or an old men's home ? Does not commonsense tell you to scrap men as well as machines ?"

Commonsense is a matter of circumstances. We find that the best commonsense is to keep a man on the job to which he is accustomed, as long as he does good work and chooses to stay there. If he wants to retire on a pension, we pension him ; but if he wants another job about the place we find that job for him.

When the late manager was asked how he made such fine saws, he answered, "Good steel and honest work." The second portion of that phrase, which has become our factory motto, is quite as important as the first. You might have the best steel in the world, but after all you would not turn out good saws if you did not have men who were just as much interested as yourself in making a good saw.

A man will be happier in his work if he knows that he is a real part of the concern, if he knows that he can spend all his working days with you without danger of an overnight discharge. We believe that our men deserve something from us over and above the wages we pay them, and that something is our personal affection and interest. In return we get loyalty and good work. I think that it would be impossible for these men to turn out inferior work. Should we, in a fit of lunacy, order a lowering of

standards, I imagine that most of the men would leave their jobs immediately. That is the reward we would get for not using common sense of business methods or applying rules alone instead of reason.

Do we lose in point of individual efficiency by keeping men who are long past the supposed age of efficient effort ? Take cases.

Ben Taylor has been with us for sixty years. Up to three years ago he could do his work as a grinder as well as anyone. He refused to take a pension, and we put him on the door. He is just as good a doorman as he was a grinder.

THE MEN ARE ANXIOUS TO KEEP ON THE ACTIVE LIST WHEN THEY CAN.

Fred Smith has been straightening saws for 55 years, and in the amount and quality of the work he does he is well up with the average of the younger men. Jack Noll, with 52 years of service behind him, is still doing the delicate work of blade-hardening as quickly as the men of half his age who work with him. George Harris has kept up his end as a smither for 54 years. George Walker worked as a machinist for 50 years. Then his health began to fail, and he asked to go on the pension list ; he bought himself a farm, and in two years had so recovered that he came back for his old job. He worked for another two years before he again went on pension.

Harry Piper, with 51 years of service behind him, operates a lathe as well as he ever did. Isaac King and William Rule have been with us for 51 years, and Austin Carter for an even 50. All three of these men are as good as ever they were. It is the same story throughout the whole list of long-term employees.

The theory that a skilled mechanic is

useless after he has passed the fifty-year mark is not based on fact. The older man cannot always move about so rapidly as the younger man, but where the work requires care and skill without much physical activity I would take the older in preference to the younger man. The arbitrary scrapping of men because of age is a sheer waste of economic effort. “Old age,” we find, is a comparative term, and is something more than years.

These men add stability to the establishment, and avoid the constant supervision which an irresponsible working force requires. The boys they trained as apprentices are working side by side with them, and absorb the traditions of the shop. They, too, catch the spirit that the most important thing is good work—that they are part and parcel of a big human machine which is creating a product that must be kept at a certain established standard.

WE BELIEVE IN TELLING THE MEN WE
APPRECIATE THEIR SERVICES.

The attitude of the corporation toward the men is well expressed in an address to the men by the eldest son of the founder after the latter's death:—

“We are aware that while inventive talent may design and intelligence direct, it is in the skill, industry and honest labour of the workmen that success must be sought, and that by their exertion the world-wide reputation of the works has been maintained; and upon their efforts, directed by intelligence and prudence on our part, depend future prosperity and success.

“It is not necessary that we should give you any assurance of our esteem for you as men, of our confidence in you as mechanics, or of our determination to

follow in the same liberal and generous course hitherto pursued, remembering the persevering effort, forgetting the occasional failure to succeed.

“As no honest workman ever appealed in vain to my late father for sympathy or assistance, or failed to receive a just return for industry or skill, so we assure you that our intercourse with you will be guided by the same honourable principles.

“Relying upon our knowledge of the business, stimulated by past success and ambitious for the future, confiding in your skill and trusting to your pride in the works which you have assisted to establish, we are convinced that the well-earned character of our manufactures will be maintained and the range of their usefulness extended.”

HOW NEW HANDS ARE TRAINED AT
THESE WORKS.

We take a boy of fifteen or sixteen, put him at ordinary tasks, and, if he proves bright and capable, start him as an apprentice when he reaches seventeen. He works at apprenticeship wages until his majority, and then he goes on the journey man list. There is no rule about selecting the boys, except that boys whose father or grandfather worked in the place are certain to be given a trial. We want those who feel that working in the firm is the natural thing to do; thus we have hundreds of fathers and sons and scores of grandsons. For instance, there are three generations of a number of families throughout the works.

The “big family” idea is carried into the home life. When the works was firmly established, and the need arose for room to enlarge; the founder of the firm bought several hundred acres of land on the river banks. He reserved fifty

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acres for expansion of the works, and divided the balance into building lots. He organised building and loan associations, helped out with second mortgages, and in every way encouraged individual effort toward home owning and home building. To-day most of the employees own the homes in which they live. There is no welfare work, however; the men are too independent for that—they are given the means of doing their own welfare work.

The men have a mutual insurance or benefit association, which is managed solely by themselves, and a condition of membership is employment in the works. They announced that they did not care to have a regular contribution from the company, and accordingly the company gives nothing except on the rare occasions when financial help is acutely needed. The company stands ready to help, but helps only in time of stress.

CONFIDENCE BETWEEN MANAGEMENT AND MEN IS ALWAYS ENCOURAGED.

In the same way a man who, through illness or other misfortune, suddenly needs money can come unhesitatingly to the office, and is personally loaned whatever funds he needs. It is a purely personal affair, and he does not have to make a formal application or go through any humiliating red tape or investigations. He knows the officer with whom he is talking and the officer knows him—more than likely they have worked together, and certainly they have often spoken with each other.

On the recreation side is the athletic association, with a fine playing field. We find that the men are just as eager to have a good record in games as they are to have it in factory products.

The whole thought of our establishment, and the reason that we gain such extraordinary loyalty, is that we work with our men and they work with us. There is no gulf between the shop and the counting-house. We expect the men to come to us with their troubles, and they do come as to friends. We know them and they know us.

We make the working conditions just as favourable as possible; we never drive, and we do not expect a man to wear himself out. Most of the work is on a piece basis, and when the day's quota is done the man may go home or work on, just as he chooses. The men know that the shop conditions are as nearly perfect as we can make them, because they see the future heads of the concern working side by side with them, not merely for a month or two, but for from five to ten years. They know that we do not ask them to do anything which we have not done ourselves nor which we are not willing to have our own children do.

In short, we try to keep away from the very idea of capital and labour and to get on the man-to-man basis. For instance, we have no fixed age at which an employee is entitled to retire on a pension, and neither have we a fixed pension. Generally the pension is half the wage which has been received in actual work, but sometimes we pay more than this amount. We put the age limit as a purely individual affair. If a man thinks he deserves a pension, we talk the matter over, and, if we agree, he gets the pension.

I think this personal relation is the ideal way of running a business, although, I suppose, it is old-fashioned. But, old-fashioned or not, it produces results. Few

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THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS

Commercial Process Work in Newspaper Plants.

EVERY now and again we have reports of process work being produced in newspaper plants for commercial purposes, and sold at prices below the scale in use by the members of the Federation. That the practice is in vogue here and there is not open to question, but whenever any such case is reported we understand that a suitable request is preferred that such a practice should not be repeated, and not unfrequently satisfactory assurances have been given.

From the annual report of President Matthew Woll, of the American Workers' Union, we learn that they have the same trouble over there, but that their Unions have taken steps to bring such practice to an end.

He says : "Some little difficulty has been experienced in a number of localities where newspaper shops are producing photo-engravings for commercial purposes and in competition with our commercial employers. In several instances this commercial service has been used as a means of attracting newspaper advertising and has acted as a distinctive harm to our commercial employers, to competing newspaper publishers not having an engraving department and to members of our organi-

zation. There is no reason whatever for the continuance of such a condition. Newspaper engraving departments are established primarily to serve the needs of newspapers. The standards of employment in our newspaper agreements are designed to meet these newspaper requirements. If, however, newspaper publishers intend that the services of our members should extend to commercial work, it is then incumbent on our local unions to require newspaper publishers, who desire to do work for commercial purposes to live up to the same rules and standards and observe the same trade ethics and requirements that are demanded of our commercial employers. A number of our local unions have already succeeded in confining the work of members employed on newspapers to strictly newspaper work. Wherever such a limitation is impracticable, our local unions should insist that the same standards be observed by newspaper employers that we require commercial shop employers to adhere to."

Such action on the part of the men's Union must be very welcome to the employers, and is a clear indication that they realise that something is due to

those who organise the employment of the larger number of their members

Especially is this the case in a further section of the report, where the President says: "Practical thinkers and men experienced in modern industrial and labour problems have come to realize that employers have rights in their investments and in the service they perform and that labour is an intelligent element in production and a human force with rights equally as dear as, if not more precious than, those of employers. It is recognized by these humane and practical leaders that industrial peace and continuity of production cannot be secured without the official recognition of labour's rights, and equal representation and participation in the solution of all questions affecting their immediate means of livelihood and future welfare. Neither can this 'labour question,' as it has come to be termed, be solved by any particular form of legislation. It is evident from the expressions of the official representatives of our employers that we are rapidly coming to that understanding where future differences will be determined by logic, reason, and co-operation rather than by force of contest—by an appeal to justice and the conscience of men rather than through an appeal to prejudice, hatred and processes of law."

With such sentiments as these gaining ground in all sections of the trade there surely should not be any difficulty in adjusting questions that may arise from time to time, each side taking into consideration the view point of the other with an earnest desire to do what is right and best for the trade as a whole rather than endeavour to force their own claims irrespective of the effect they may have upon the other side.

In Memoriam.

Mr. Wilson, of Messrs. Wilson & Hudson, of Manchester, passes away.

WE regret to have to chronicle the removal from the activities of his business of Mr. Wilson, the head of the well-known firm that bears his name.

Mr. Wilson was one of the earliest to introduce process engraving into Manchester, where, with the assistance of Mr. Hudson, he founded the now well-known firm of Messrs. Wilson & Hudson.

Formerly both partners were interested in wood engraving, but as process began to supercede that method of reproduction, they, some twenty years ago, turned their thoughts to the consideration of process engraving and met with much success, and as the years rolled along they became well-known throughout the country for the excellence of their work.

Perhaps Mr. Wilson, owing to an infirmity that prevented him from taking active part in the trade meetings, is not as well known as some others; he nevertheless took a very deep interest in Federation matters and followed them with great keenness and was always ready to help forward the good work in any way he possibly could.

In the midst of his work, and in the full enthusiasm of middle life, he has been taken from us after but a week's illness, for pneumonia seized upon him and he had not sufficient vitality to withstand its effects, so he passed away on the 8th October at the comparatively early age of fifty-three, leaving a widow and two children to mourn his loss.

We understand the business will continue as formerly, and will be carried on by Mr. Hudson.

A Bonus for Increased Production.

THERE seems to be a general desire arising among the leaders in the various industries to give the workers more direct interest in their production than the mere payment of a living wage.

It seems evident to the writer that the way in which this may be accomplished and increased output may be secured, is in the direction of compiling a bonus scale, so that the smartest and most productive employees shall be paid for the extra work they are able to produce over and above that produced by the normal employee.

This appears to be only fair and right, because it is not to be expected that the energetic workman, who has taken pains to train himself so that he is able quickly and efficiently to locate and remedy the difficulties which so often arise in the practice of his craft, should be satisfied that the reward of his skill will merely be the "glow of satisfaction" which he feels at having performed a task smartly and well.

I know that there are difficulties in the way of working out a fair bonus scheme, and that there must be some protection against the action of those employers who use any increase of output on the part of the special man as a weapon with which to berate those who only find themselves capable of producing an ordinary quantity.

We are now anxious to get from every machine and employee the most and best they are capable of producing, and it appears to me the relations between employer and employee have so changed that they should be able to work out a

scheme together, to remain in force for a period sufficient to give it a fair trial, which would admit a bonus to be paid for extra output on some such lines as follows :—

The minimum wage as fixed by a new Grade Scale to be paid to every man.

The output, based on the amount which a man such as would be paid the minimum rate would be expected to do, to be fixed by a conference of employers and the union, and for this quantity per hour, the minimum rate to be paid.

All above the quantity fixed for the minimum rate to be paid for extra at the same rate of wages.

The fixing of a high bonus rate is, I consider, important, because the trivial rate on which bonuses have often been fixed, as well as other ways in which good output has been abused, have brought them into discredit among trade unionists, and the employer should take into consideration the increased output and consequent lowering of his overhead charges.

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in the method of most salesmen. Price is, after all, a secondary consideration to design and quality, and it is only because of the inability to discuss authoritatively the more important features of a sale that the average salesman allows himself to be placed in a defensive position. Whenever the selling conversation lapses on to the bromides, "price," and "delivery," there is danger ahead.

In an article of this length it is impossible to do more than sketch the idea in mind ; but there is food for thought in the preceding paragraphs—food, we trust, that will not cause mental indigestion to the trader.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

OFFICERS.

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Vice-President—

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The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Council at Work.

WITH the coming of the Autumn season and the members of the Council having returned from their holidays, the attendance at the Council Meetings has been above the average; in fact at some of the meetings at which matters of the deepest interest to the Trade had to be discussed, there has been what may be described as record attendances. Consequently matters of great moment have received the most careful attention of practically the whole of the Council.

The improved outlook of the Trade, in spite of the upheaval in the Labour world has been very gratifying to the Council, and it is a pleasure to report that the Trade seems to be in a very healthy condition so far as orders are concerned, and we believe that practically every available man has been absorbed. It is most gratifying to find that so soon after the cessation of hostilities practically the whole of the process workers have found their way back to the firms from whom they were taken, or have found employment in other houses.

The outlook being so favourable it is to be hoped that nothing will transpire to create a cloud that may darken the horizon, though it must be confessed that unless Labour troubles are composed and trade in general falls into its swing it is evident the present conditions cannot be maintained, in which case this trade as well as other will probably receive a heavy set back, for unless trade in general

is good orders for illustrations are somewhat at a discount.

New process firms are arising all over the country, consequently the Council is keeping a close watch upon these developments and takes the necessary steps to secure their adhesion to the Federation. In this the Council has been very successful, for so far every new house of which it has any knowledge has been brought within the circle, and has been duly elected.

The final arrangements for the formation of a Joint Industrial Council for the process trade still hang fire, so many things seem to interfere with its completion that at times it would seem as though the fates were working against it. Perhaps by the time we publish our next issue we may be able to report further progress.

An unfortunate dispute between one of the houses in the Federation and a Trade Union has called for very earnest and careful attention. The Council has given much time and thought to the matter with a view to getting it adjusted. So far their efforts have not met with great success, but as the question in dispute is one of very great importance to the entire trade, it is felt that the whole weight of the Federation must be brought to bear so as to ensure a fair and equitable settlement which after all should not be difficult providing good statesmanship is brought to bear upon the matter.

If this is successfully negotiated efforts will be made in order that the settlement shall be the basis upon which future arrangements may be expected to be based, so that after all it may turn out that this case may have been a blessing in disguise.

Another matter that at one time looked as though it might lead to a difficult position between the Federation and the

Men's Society was taken in hand by the President, and so successful was he in the work that the whole matter was cleared up to the complete satisfaction of both sides.

A matter of considerable importance was reported by one of the members of the Federation, viz., a claim by an Inspector under the National Insurance Act that mounters in process houses must come under the wood workers unemployment insurance section of that Act. The opinion of the Council was that the class of worker referred to in the Act was entirely different from those employed in the process trade, therefore our men were not liable to such insurance, and further that the Act was never intended to cover such employment as that referred to.

After considerable discussion it was decided that as the matter must go before the Official Arbitrator for his decision two members of the Council were deputed to meet the Arbitrator at his offices, when they, together with the Secretary of the local branch of the Men's Society, put the case for the process-engravers so clearly before the official in question, that he, after due consideration, upheld the contention of the Council and gave the award in favour of the Federation. Particulars re this case have been distributed among the members.

A matter that seems to cause much enquiry is what rate of discount may be allowed to various classes of customers.

The discount schedule as prepared by the Council seems perfectly clear and explicit, and the instructions that have been issued from time to time should, it is felt, have put the matter beyond any question. This, however, does not seem to be the case.

If it is borne in mind that trade discount must be given only to those legitimately entitled to it according to

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regulations the case is made very clear, and very simple.

The following illustrations shew the working of the scheme :—

A publisher is one **whose chief business** is publishing for profit, but a private firm or large company that publishes an annual which is sold to the public as a magazine to sell to their employees or for the purpose of boosting their trade or for any other purpose is **not** a publisher, and must not have the trade discount.

A printer is one **whose chief business** is the production of printing for the purpose of supplying his customers with their requirements, but a manufacturer, etc., who has a printing plant for the purposes of his business, and who occasionally supplies others with productions from his presses is **not** a printer, and must not have the trade discount.

An advertising agent is one whose **chief business** is the production of advertisements for the use of his clients, but a commercial house that has an advertising department for the purposes of its business and who has some clients for whom it does some trade advertising, is **not** to be considered an advertising agency, and must not be allowed the trade discounts.

These three examples will give the key to the system to be followed, and if the members of the Federation will but study them and act accordingly there need be no question as to who may or may not be allowed the discount reserved for trade customers only.

A matter of some importance to London process engravers, viz., the heading under which members of the trade are classified in the London Post Office Directory, was dealt with, with the most satisfactory results.

Hitherto only one house has appeared

in the Directory under the heading of Process-Engravers, the house in question having paid for the privilege, and any other house who wished to be entered under that heading had also to pay a similar amount.

The Council considered that as "Process Engravers" is the heading that correctly described the trade, every house in the trade should be allowed to go under that heading free.

The matter was placed before the publishers who, after consideration, came to the conclusion that the claims were well founded, and at once agreed to the request of the Council, so that in future issues every process house may claim to be included under that heading, and if they desire to go under any other as well they may do so by paying the usual fee for that purpose.

From time to time reports are received that certain members of the Federation are not keeping strictly to the conditions laid down. Whenever such cases are reported, and the facts stated, immediate steps are taken to investigate the matter.

Sometimes these reports are mere hearsay; at others the information is given "in strict confidence." It must be very clear to those complaining that it is an impossibility to investigate charges made under such conditions, but in every case where there is sufficient information given full investigation has proved that the information given has been untrue; only a few days ago a complaint was laid against a well-known house. It would appear that two process engravers were working for the same customer, one of them was informed that the other was allowing 5 per cent. more than the scale allowed, and that the information could be used in any way it thought fit.

The information was passed on to the Council and was duly investigated when it was discovered that the customer in question was actually lodging a claim against the house said to be transgressing for not having allowed the full discount.

This is a fair specimen of much of the information conveyed by customers who are seeking to undermine the loyalty of the members of the Federation by endeavouring to create suspicion of their fellow members.

The report of the work done by the Northern Counties Branch at their last meeting was a very interesting document and shews that the Branch is full of vigour and is doing good work.

Many of the suggestions put forward will receive careful consideration by the Council, and some of them may be expected to bear fruit in the near future.

The matter of greatest moment to the trade which the Council has had to deal with during the month is the application by the Men's Society for an increase of fifteen shillings per week in the wages of the employees.

Such a serious matter called for very careful consideration, and has to be viewed from every standpoint so that justice may be done to all concerned.

It will be evident to everybody that if such an increase has to be granted it must necessitate another rise in the price of process blocks, for it is impossible for the process engravers to meet the increase out of the profits at present being earned by the trade.

A serious side of the question is the effect such a rise will have upon the demand for illustrations or putting it another way: Can the public afford to pay higher prices than those now ruling, seeing we are continually being met with the claim that

prices are now beyond what can be paid if blocks are to be used freely.

True, there is a very good demand just at present, but will it last? And it seems somewhat unsafe to take it for granted that the present demand will be continued for any length of time.

The trade may rest assured that the Council will investigate the matter thoroughly, keeping in view the claims of the employees, the employers, and the users, and will endeavour to do justly by all.

Sell Him Something.

I.

When you get up against the man
Who says he doesn't need a thing,
(And says it so it leaves a sting),
Don't let him get you on the pan,
But hold your goat and lay your plan.
Then after he has had his fling---
Just sell him something !

II.

The man who's always full of air
Will often preach at length to you
And tell you just what he would do
If selling goods was his affair.
You wait a bit till he's all through--
Then sell him something !

III.

The man who always cuts you deep
Is he who holds you at the door
And shows you plainly you're a bore
He'll make you feel so rotten cheap
You'll want to knock him sound asleep.
But don't get mad. Just talk some
more
And sell him something !

---" Partners."

Art and Salesmanship.

THOSE who enjoy debate can obtain considerable pleasure from bringing together a commercial artist of the new school and a salesman of the old school, and submitting the question: What relation does commercial art bear to salesmanship?

The result will be very much the same as it would be should you assemble citizens of England, France, Italy and the United States and ask them: Who won the war?

Your old-line salesman will tell you—with tears in his eyes, should you show signs of doubt—that art, along with every other element in the commercial world, depends for its very existence upon salesmanship; that nothing has value until it has been sold. And he will prove it.

In turn, the artist, if he be versed in the ways of modern business, will declare with equal emphasis that the genus salesman would long since have been extinct were it not for the fact that someone furnished him with something to sell; that the artist is essential to the preparation and advertising of any saleable commodity. And he will prove it.

Then, if you are a philosopher, you will assure each of them that he is right, and turn in for a good night's rest. If you are not a philosopher, you will toss about for some hours, bewail the edict of July 1st, and ask yourself what's wrong with this world, anyway. You will be in very much the same state of mind as you were when some academic professor first put the question: What happens when an irresistible force meets an immovable object?

As a matter of fact, there "ain't no sich animal" as irresistible force or an immovable object. Likewise there is no commercial artist who can exist without

salesmanship; nor any salesman who can exist without art—using the term in its broader sense.

Everything in this world is co-related. The arts, professions and crafts merge into one another, and are complementary to such an extent that it would be impossible to remove any one element without breaking down the whole fabric.

Probably no two elements in the business world are more dependent upon each other than are salesmanship and art. Either one would fail miserably without the other. It is high time that both factions recognized this truth, and strove for a closer relationship. Mutual understanding would go a long way to advance the interests of both.

The artist who, one regrets to say, still has less consideration from the business world than the salesman, must be the one to take the initiative in promoting the spirit of co-operation, for the reason that because of his lack of recognition he has more to gain. When he has convinced the salesman of their interdependence, he will have gone a long way toward bettering the standing of his profession.

The ideal salesman—especially in the lines of lithographing, printing and their allied craft—is the man with a comprehensive knowledge of art. The most successful lithograph salesman on the Pacific Coast is a man who began his career in the art department; and the secret of his success lies in the fact that he is able, in talking to his customers, to speak with authority on the details of the goods he is selling. Thus he gains his patron's confidence, and, incidentally, gets away from "price talk," which is the weak point

(Continued on page 163.)

A New Process Engraving Company Proposes to Work a New Plan.

IN all probability we shall hear, from time to time, of new ventures in the realm of process, and it will be a pleasure to all those most deeply interested in the trade to welcome new comers who bring some new methods or systems or organization that shall be for the benefit of all concerned.

We have heard rumours of coming developments, many of which will in all probability never see daylight, but here is one now launched upon the troubled waters, the organizers of which believe they have evolved an ideal system of handling their accounts as well as their employees, for each customer is to have "supervised service" whatever that may mean, and his account is to be "handled by a practical man with wide experience." This surely should give the most popular and up-to-date service possible.

Here are the particulars as set out in their prospectus:—

It will be the aim of the company to bring together the best men available in the engraving, advertising and publishing business to form an organization which will have as its primary object "supervised service" to each of its customers. Each account will be handled by a practical man with wide experience in the engraving field—every account will be a "house account."

Probably the most appealing feature of the company's plan is the division of profits that is to be effected between capital and labour. Briefly outlined, the plan is as follows:—

Capital is entitled to six per cent. on the investment. All earnings over this amount are to be divided equally between

capital and labour by the following method.

One-third to be paid direct to labour as its share in the prosperity of the company ;

One-third to be placed in a surplus account to guarantee the future stability of the business, thereby benefiting both labour and capital to an equal extent ;

One-third to be paid as extra dividends on capital invested.

Whether the scheme of profit-sharing as given here will be of any real use, of course remains to be seen, and we shall be curious to see the results twelve months hence.

But many things may happen before that period arrives, especially as the Trade Unions are frowning upon any system of profit-sharing. Perhaps in the meantime they may devise some scheme which will be welcomed by the whole trade.

Two Men.

One man buys—he sees only the cost of what he buys.

Another buys and considers what he got for his money.

The man who looks at cost, only—never gets more than he pays for.

The wise man considers what he gets for his expenditures.

The first is cheap.

The second gets his money's worth, and more.

A man, when buying printed matter, who looks only at the cost, fails to get service, care and proper attention to display and color that his work should have, for the reason that printers are human and cannot afford to spend time on work where price is the only consideration.

✓ *Relief Plate Printing on the Offset Press.*

Dry Lithography.

By *James W. Lee*, in *National Lithographer* (N.Y.).

IN the following I will try to explain the dominant features of Dry Lithography, so as to enable my readers to understand its application. This method differs from the ordinary lithographing in that no damping rollers are used, the printing surface of the plate being in slight relief, not so noticeable as in typography, but in relief enough to be able to do

LITHOGRAPHING WITHOUT THE USE OF WATER.

For forme rollers some use smooth rubber rollers, especially if aniline colours are used exclusively, but when the ordinary lithographic inks are used and necessitate the use of oils for thinning purposes, my experience has proved that rubber rollers expand and the expansion and contraction of rubber rollers would be a handicap. For this reason I recommend a slightly grained composition roller. Pantograph safety tints for cheques and other bank work can be done because of the excellent results attained by this method. This led to the relief plate printing of other classes of lithographic work.

A SCREEN USED.

Through long study of this proposition my efforts finally resulted into using a screen in conjunction with the original idea, thus paving the way for this method to be carried on in other branches.

I am fully aware that there have been many methods, with various claims, introduced into the lithographic industry which have at periods aroused interest. Expecting much discussion concerning this—possibly some criticism for making

such an announcement, it is with considerable reluctance that I bring this proposition before the lithographic trade, because I know it will bring the usual array of objections.

LITHO. v. TYPO

As has been pointed out by me on several prior occasions in "The National Lithographer," the question is briefly whether we wish to go ahead with a practical and legitimate plan that promises substantial and urgently needed advancement, or shall we stand by and see the typographical industry come forward and grasp this method whereby it would be the means of getting a strangle hold on the offset press and enable them to do

LITHOGRAPHING IN TYPOGRAPHICAL STYLE?

We would not like to think of what will happen to certain branches of our trade if conditions like this should arise, but in view of the prospects it is well to call attention to one point that is generally overlooked, and this is that the offset lithographic press can be converted into a press that will do typographical work.

If we follow this system accurately and move only step by step, we may foresee what lies ahead. We must be careful to use it to the best advantage, as there are circumstances which may be a detriment to us. Its proper use would seem to be

TO FORTIFY LITHOGRAPHY.

Relief printing on the offset press has passed the experimental stage, and contains immeasurable possibilities for the future. The method should be determined by lithographers themselves, and

its merits given careful consideration. After lithographers are convinced of the feasibility of this method they will wonder how this is going to help the trade in general. Well, to answer that I say emphatically that, whilst this method must henceforth be the goal of lithographers, it can only be reached by gradual stages.

A RUBBER MATRIX.

Nine out of every ten lithographers will say a method of this sort would not be practical on account of the relief plate forming a matrix on the rubber. I have been closely connected with this for five years and have had as many as four presses running at one time, and I wish to say positively that since its inception it has never permitted a matrix to form on the rubber in all that time.

THE FUTURE OF PHOTO-TRANSFERRING.

Talking with photo-engraving experts about this idea, they readily admitted seeing a great future for photographic transferring. Of course an entirely new line of procedure must be outlined and designs must be made for the methods. But the various over all patterns, such as box covers, lining papers, reproductions of oil paintings, cigar box edgings and all classes of work that will cover the whole surface of a sheet can be handled in this manner. In fact, the sum and substance is, any lithographic work that will permit screens or backgrounds to be used in conjunction with the printed matter, will act as bearers. This prohibits the rollers from inking blank spaces. Heretofore, when zinc etch printing was mentioned a person had in mind the poorest kind of printed work, but the zinc etch printing from an offset press is

IN A CLASS BY ITSELF.

Great credit is due to lithography. We have the material, the equipment and the organisation with which to produce

lithographing by this method. It is erroneous to think that it will cost a great outlay of money; all that is needed is practical experience.

THE DOMINANT FEATURES.

of offset relief plate printing are as follows:

The pest (damping rollers) of lithography eliminated.

Time saved every morning, no dampers to moisten.

No washing off, or gumming plate, not only saving time, but abolishing the chances of spoiling plate through irregular gumming or streaking.

No water to bother ink distribution.

Corrosion and oxidation a thing of the past.

Quicker washups, as all rollers are smooth; rags are used instead of sand-paper and scraping knives.

The everlasting heavy cost of leather rollers, which at longest never last more than a year if used daily; the use of vulcanised rollers which will last for years.

Better register can be expected with the removal of water.

PRINTING OF SOFT PAPERS

has its limitations with the prevailing method owing to the fact that you can go just so far in regard to thinning ink, otherwise you will have to contend with the scumming of work. With relief plate printing conditions of this sort are abolished.

TRANSFERRING REPEATS.

There are some lithographic concerns in this country that have presses running the year round on certain classes of work, who are continually making transfers over, and the relief plate would be the ideal proposition, as a plate used in this manner will last for years. The plate will always remain sharp, as it never comes in contact with anything except the yielding surface of the rubber blanket.

✓*The Selection of Colour.*

Combinations of colours often bother the advertising man, the printer, and even the home-maker. A brief statement of the elementary rules for combining colours, therefore, in a form suitable for reference ought to be a very useful tabulation to have at hand.

THE selection of colour is important. Good colour combinations attract the eye and hold a person's attention ; badly selected colours offend the eye and repel observation. The question of what colour to use with a certain given colour is continually arising, not only in connection with wearing apparel, but in printing, painting, interior decoration, backgrounds for show windows, etc. While the use of colour is an art, there are many established facts regarding the proper selection of any particular colour for matching or forming the background for another colour. The following are a few of these which may prove of assistance for ready reference :

RED.—A warm, rich colour, signifying joy, whose complementary is green. Other colours that go well with red are olive, blue, white, and light pink.

YELLOW.—Also a warm and joyful colour. Its complementary is purple, and any one of the following colours also makes a pleasing combination when used with yellow : Black, blue, white, dark brown, rich grass-green. When yellow is used with blue only a very little yellow in proportion to the blue should be used for a rich effect.

BLUE.—A cool colour, signifying peace. Orange is its complementary. Yellow, red, and white go well with blue.

ORANGE.—Like red and yellow, orange is a warm colour, signifying joy. Its

complementary is blue, but orange also looks well when used in connection with purple, olive-green, black or white.

GREEN.—A cool and peaceful colour, restful to the eye. Red is its colour complement, and white, yellow, orange, brown, or pink go well with it.

PURPLE.—A warm, rich colour, signifying seriousness. Yellow is its colour complement, and lavender, orange, cream, or pink are the next best colours to use.

BROWN.—A serious colour, often signifying quiescence and sorrow. Sage is its colour complement, and green, gray, white, and cream make pleasant associates for brown.

OLIVE.—Its colour complement is maroon. Red, brown, cream, or white go well with olive.

LAVENDER.—Cream is the colour complement. Brown, purple, dark blue, and dark gray go well with lavender.

PINK.—Straw is the colour complement. Yellow, green, blue, or maroon go well with pink.

SAGE.—Brown is the colour complement. Maroon, orange, red, purple, or white go well with sage.

WHITE.—A splendid colour for background use, as it displays both the light and the dark colours. White intensifies any colour ; that is, red is redder and green is greener when surrounded with white. Black is the colour complement, and it goes well with purple, red, blue, green, or brown.

GRAY.—Gray is a quiet colour, sometimes signifying sorrow. Black may be said to be the colour complement, and gray goes well with brown, blue, purple, orange, or red.

BLACK.—Is associated with quiescence

and sorrow. White is the colour complement, and black goes well with yellow, buff, cream, orange, or light gray.

As a rule the following combinations of colour are weak and do not make good colour schemes: Blue and purple, blue and green, red and yellow, orange and yellow, red and violet, and shades and tints of these colours.

White, gray, and black are not colours in reality, but since there are goods, paints, and printing inks of white, gray and black, they are included in the above list.

According to the generally accepted authorities, all colours are combinations of the three original colours, red, yellow, and blue. Orange is a combination of equal portions of red and yellow, and, therefore, blue is its complementary colour; green is composed of equal portions of yellow and blue, and red is its complementary; purple, of equal portions of red and blue, and yellow is its complementary.

The complementary colours used together, as blue and orange, red and green, purple and yellow, etc., tend to enliven and enhance one another. Each colour looks richer and is more pleasing to the eye when used in connection with its complementary colour. The reason for this is explained by the fact that a complementary to any colour is the colour of its after-image. If the reader will look at any object of a bright orange, for instance, until his eyes are saturated with that colour, and then close them, the object will be seen with the closed eyes in a bright blue, the complementary colour for orange. If the objects were red, the after-image would be green; if yellow, the after-image would be purple, etc.

Those interested in this subject should make the test.

From the above, it is evident that when one colour is seen, the next colour to it should harmonize with the colour nature has formed in the eye, i.e., its complementary colour.—"The Printing Art."

Drying Marks.

DRYING marks in negatives are almost certain to crop up unless the negatives are kept at a fairly even temperature during the whole of the drying process. If part of a negative is dried quickly and the remainder dried slowly, or *vice versa* there will be a sharply defined mark separating the part that was dried quickly from the part that was dried slowly, and no after-treatment will remove it.

This trouble is often brought about by placing the negatives too close together in the drying rack, and thereby preventing a free current of air from reaching the whole of the gelatine surface. When negatives are stood up in a rack and left over night in a cool room with closed doors they are usually only about three-parts dry by the morning. Then a fire is lighted, the room ventilated and drying quickly finished, with the result that there is a marked difference in density between the parts that dried during the night and the parts that dried in the morning.

The best way to avoid drying marks is to dry the negatives quickly. Before standing them up, the surface moisture should be wiped from both the fronts and the backs with a damp pad of cotton wool or a piece of chamois leather. They should be placed a couple of inches apart in the rack, and once they have started drying in one room, should not be carried into another.—*Professional Photographer*.

Pictorial Ambassadors.

By *Sidney Armer.*

“**I**F the clothes were stripped from all men, the king could not be distinguished from the peasant.” It was Carlyle or some other wise one who said that, and he might have added, “and the king could not distinguish himself from the peasant. For verily the tailor makes the man.”

Clothe him in prison stripes, and his character changes with his garb; his self-respect goes; he sees himself the felon, and henceforth acts the felon's part. The physical coward, dressed as a soldier, sees his timidity vanish, as he notes the formidable aspect which he presents. Padded shoulders, epaulets and spiked helmets put physical bravery into the character of the wearers.

Observe the actor. He can speak the lines of Othello and then recite Gobbo; with very different elocution, but only at dress rehearsal does he live the parts. And in all probability, if Othello were dressed in doublet and hose instead of the robes of the Moor, he would be reciting the lines of Hamlet before he was aware of it.

Yes, all the world's a stage and all the men and women act according to their outward appearances.

The world of commerce and industry is also a stage, and the firms and corporations are the players. It is true they are ghostly figures, hard to visualize, but they have their entrances and their exits, and all play parts of varied character.

You may not know a single member of the Standard Oil Company, or any member of the Get-Rich-Quick Association. Yet in your mind you have a distinct estimate of the character of each. Your estimate is the “good will” of a

business, that thing that remains after the proprietor of a business withdraws from it and which has a value reckoned in money.

It is vital that the character part that a given business plays shall receive public approval. Rectitude and business integrity are important of course, but how shall the public estimate a business with which it has, as yet, had no business dealings. The public is a keen critic given to quick and accurate conclusions. One of its unerring methods is to judge a firm by its pictorial ambassadors.

That which a firm says in print or illustration, or the impression it makes by the quality of its pictorial addresses, these are the things that establish its standing in the public eye.

But these ambassadors serve a dual purpose. They are the costume in which the firm clothes itself, the visualized character of the corporation. By them it is not only judged, but from them it forms an estimate of itself. Be these ambassadors dignified and superior, the firm assumes the part and living up to its outward appearance, itself becomes dignified and superior---be they slovenly and second rate, degeneration of the firm is in sight.

The proper labelling of a product, the high quality of poster, hanger or cut-out that announces it, react upon the firm that distributes it, and if the art work has the polish and convincing manners of an adequate ambassador, the same character will be assumed by the home house.

So whereas the clothes make the man, it is wisdom to select an excellent tailor, and to allow him adequate material and compensation.

Advertising Art.

IN any form of advertising the picture is the point of contact, and while it is hard to decide what is the most important element in advertising we do know that at that particular time—when the advertising piece is laid before the recipient—the picture is the all-important thing.

Put your advertising piece on the business man's desk, or wherever you plan to meet the prospect, and then the picture decides whether your arguments are going to receive attention or not. His eyes are unconsciously attracted to the picture. It's a physical law he can't violate, and the sense of sight being more than just "looking," something else takes place. Neither he, or any one else, can look at an object without creating mental action, and therefore the picture you use starts the interview even before your man realizes it. The picture is a kind of psychological jimmy that opens his mental windows without his consent. If the wrong picture is used the prospect is very apt to immediately close the window, pull down the shade and consign your month's work to the w.p.b. But if the right picture is used he may open up and invite your arguments in to chat awhile.

Pictures can be analyzed and classified just the same as any other element of advertising. The right picture can be determined. There is a reason why certain people like certain pictures, why certain classes of people like certain kinds of pictures. If you understand the class you wish to reach it is possible to determine the right picture to use to make the best appeal to that particular class.

The picture is probably the most important factor in the process of creating a

prejudice in favour of your goods. The purpose of advertising is to change somebody's opinion, or rather to manufacture new opinions. The theory that most people have regarding opinions is all wrong. Opinions are not the result of deliberate thinking; men are not convinced by argument. Opinions are accepted, swallowed, absorbed, soaked in, but never, as we have been taught to believe, the result of weighing the evidence. The argument and deliberate thinking is done afterwards and used to substantiate the opinion which was swallowed.

How, then, are minds made to accept opinions? By suggestions, by positive statements, by pictures. In the process of making a prospect accept what you want him to about your goods the picture is the best weapon to use. First, it gets his attention. It opens his eyes and then penetrates to his brain before he can close his eyes. It brings emotions to the surface and makes him susceptible to your statements. It will induce him to read the text. The picture, if used right and persistently, will make him accept your opinion, or, as they say, "convince him" without any text.—From "The Northern."

RUSH-ORDER promises are easily made, but not so readily fulfilled—consequently they often result in strained business relations. Do not make rush promises.
—*Daniel Baker.*

THE fool asks, What is he worth? The wise asks, What has he done? A man's money value may be great, and yet he may be worth nothing. It is no disgrace to be rich, nor to be poor; but it is a disgrace to die without having done something.—*Bethlehem Booster.*

THE PROCESS MONTHLY.

THE NORTHERN, the house organ of the Northern Engraving Company, Canton, Ohio, maintains its reputation as an effective reminder of the good work of the Company.

Some of the recent examples of the work produced by them have been excellent. A very effective one was in the July issue, entitled "The Background Helps," a half-tone with a ghost background behind it that gives just the amount of balance that calls attention to an effective illustration.

"ZINC AND INK" is the suggestive if not very euphonious title of a series of booklets being issued by the Hirst Engraving Company, of Rochdale, N.Y. The number before us is very well produced, and the illustrations are exceedingly good, and the message put in attractive style; though there is nothing out of the ordinary, we think it will be well received by customers and so secure the desired result.

REGINALD B. MELLER, of San Francisco, sends us one of his announcement cards, one of the most choice and dainty cards of the kind we have ever seen, beautifully simple and exquisitely neat, just the kind of thing that makes a deep impression by its simplicity, yet brands the designer as a master in his art.

DIRECT PUBLICITY, a magazine for buyers of printing, is the house organ of the W.M. Linn & Sons Co., of Columbus. It is well got up, carefully prepared, bright and interesting. As a specimen of the class of work put out by the Company it should command the attention of buyers.

SINCERITY IN ADVERTISING is the title of an attractive folder issued by the Speere Publicity Service, of New Court, Lincoln's Inn, who claim to specialise in cover designs, an efficient publicity service, trade marks, trade names—in short everything that pertains to publicity.

This folder is boldly conceived and artistically carried out, and should be a good advertisement for the Company.

THE MORLAND PRESS, of Ebury Street, sends us a copy of In Memoriam Edward Thomas, which is No. 2 of their Green Pasture series.

The production of this little brochure is strictly in character with the well-known features that have made the Morland Press famous. The format, the type and the decorative work are all carefully worked out and thoroughly well done, and are produced to meet the tastes of a special class who desire something exclusive.

This booklet consists of twenty pages, and the price is two shillings net.

THE POCKET BOOK, issued by the Art Engraving Company, of Cleveland, Ohio, is always a welcome visitor. It is always full of something good, and we can do our readers no better service than recommend them to procure this excellent little monthly.

ETCHINGS is the title of the beautiful booklet issued monthly by Messrs. Gatchell & Maning, of Philadelphia. This Company seems to excel in such work as this. They have the beautiful art of packing a great amount of valuable information into a small space, yet it is never cramped or overdone. Surely the editor of this booklet must be an artist of the first quality. It is sure of a welcome wherever it goes, and we do not think anyone would willingly miss it once they had commenced to enjoy the perusal.

THE COMMERCIAL ARTIST, published by the Commercial Artists' Association of the Bay Cities, is a bright production and full of interest to every one interested in art in commerce.

We often wonder why it is there is no such publication in this country. Surely it is time the Commercial Artists of England took steps to place their work more completely before the great advertizers of this country. They could not do better than take a leaf out of the book of their brethren of the Bay Cities.

THE THUMB TACK, a monthly issued by the Commercial Artists' Association of Southern California, has a great deal to commend it to those for whom it is issued. It is full of good commonsense talks, and has high ideals for the members of the Association it represents. It has also many straight talks to those it feels are not running quite straight with the artists. We print elsewhere an article entitled "To the Photo-Engravers." Perhaps the perusal of it may be of interest to photo-engravers in this country.

FINE PHOTOGRAPHY is the title of a little booklet issued by Messrs. Burroughs Welcome. It is mainly intended for the amateur and beginner. It is full of very valuable information, and is well got up and great pains have been taken to make it as perfect and complete as possible. It thoroughly reflects the well-known character of the house for finish and appropriateness.

PULL TOGETHER, published by Eaton Crane and Pike Co., of Pittsfield, Mass., is a publication devoted to the purpose of spreading broadcast selling ideas and business-producing methods for the use of dealers in stationery. One special method of increasing business discussed is the prospect of becoming agent to a process house, so that after all process engravers are of some use.



THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS

Mr. Greenhill and the American Scale.

The Council ask Mr. Greenhill to describe American Methods of Charging Process Blocks.

The Editor, Process Engravers' Monthly.

Dear Sir,—At the General Meeting of the trade held at St. Bride's Institute on November 27th, I, at the request of the Council, gave a brief demonstration of the American method of charging process blocks. This address aroused very considerable interest, and I was asked to write an article opening a discussion on the matter in your magazine, with a view to the trade considering the possibility of adopting a similar plan in this country, it is in accordance with this request I send the following outline of the scheme.

It is only fair at the outset to call attention to the fact that the suggestion to adopt a method of measurement on lines similar to the American system is by no means new. It was, I think, late in 1914 or early in 1915 that Mr. Arthur Cox, the then President of the Association, proposed the adoption of the back measurement of process plates as a means of simplifying the charging of blocks and of increasing the price. I frankly confess that at that time I (with others) definitely opposed the proposal on the ground that the time was not opportune to introduce such a radical change as this then appeared to us, and also on the ground that the trade was not sufficiently organised to put through such a scheme successfully.

Later on, Mr. Editor, you yourself

proposed a scheme to the Council which you had worked out in great detail, and which must have involved a great deal of careful work on your part. This, if I remember rightly, was based on the adoption of a similar scale with a small minimum covering initial costs as a base charge, and then with a smaller charge per inch after the first 5in., which latter measurement I think you suggested as the minimum.

This proposal created a good deal of interest, but did not get sufficient support on the Council to enable it to be carried further.

Now, Sir, I have been wondering why these two proposals did not make a stronger appeal to the trade, and have come to the conclusion that it was largely because the trade did not get an opportunity of *seeing the schemes in operation*. Anyway, for my part, although both schemes interested me, I did not really appreciate or understand the advantages to be gained until in a recent visit to the States I saw how simply and efficiently they charged up their blocks.

Let me now briefly describe their method. They have a scale ruled out in $\frac{1}{4}$ in. squares, and in each square two prices are shown, that in the black type being the price for half-tone, squared up, the lighter type indicating the price of ordin-

THE PROCESS MONTHLY.

any line work. The measurement of the block is always calculated according to the back of the plate, that is it includes the bevel (if there be one), and to get the correct charge it is only necessary to place the block or plate on the lower left-hand corner of the scale, and the price will be found in the square at the upper right-hand corner of the block. (See page 179 for portion of scale reproduced, with a ghost block in position).

In actual practice the Americans frame the scale so that the bottom and left-hand portions of the block come close up against the inside beading of the frame, which holds the glass covering the scale. It will be seen then that it is an exceedingly simple and quick operation to slide either the mounted or unmounted plate right into the lower left-hand corner and read the price off at the top right-hand corner of the plate.

In invoicing they do not state the size of the plate, but simply : " One tone block motor car, \$4.50 " ; or " One line block as per your order No. 5106, \$2.93 " and so on. The customer has in his office an identical scale, and if he wishes to check the invoice price he simply puts the block on his scale and checks off the price without having to measure the plate. In the event of the block not being available when charging up is done, it is only necessary to add a $\frac{1}{4}$ in. to the size shown on the proof in order to arrive at the same result.

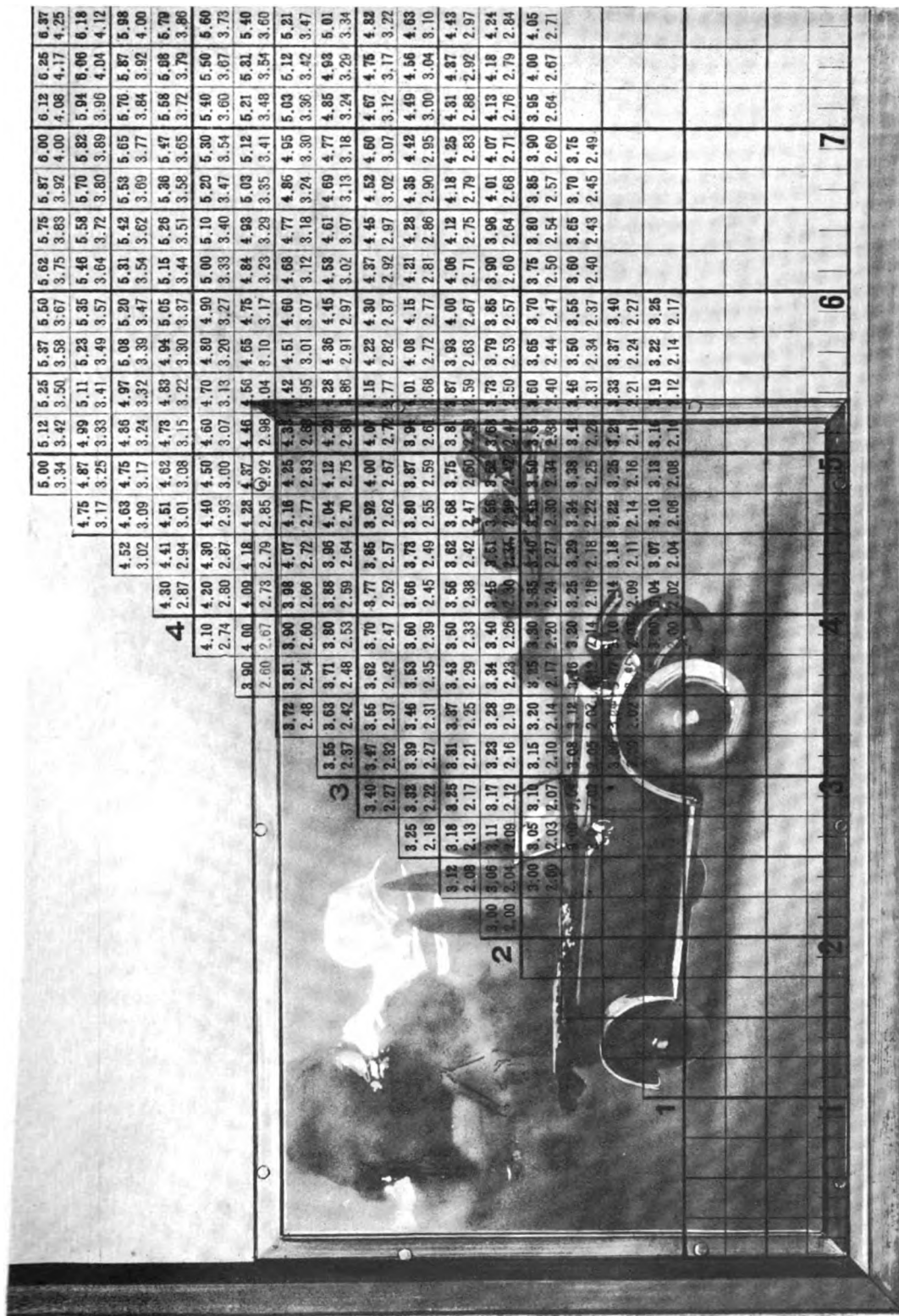
The method of operation in the States is that the assistant who packs and despatches the blocks puts them on the scale and marks the price on the invoice proofs before packing the blocks. These invoice proofs with the cost tickets then go to the office for charging. To see the rapidity and the accuracy with which

these invoice proofs are marked off as against the methods adopted in this country is a revelation, and I think it is no exaggeration to say that work can be charged up four times as quickly, with much less chance of error, than obtains with our method ; and with the further advantage of almost certain uniformity all over the country.

I would also call attention to the great advantage the scale has for estimating purposes. If either the blockmaker or his client wishes to know the price of a block say 8in. by 5in., it is only necessary to see where the 8in. line and the 5in. line cross on the scale and to read the price of same—allowing of course for the bevel.

In dealing with cut-out work, varying screens, different qualities of blocks, such as newspaper blocks of coarse screen, and similar variations of work, the American engravers add or subtract a definite percentage of the price indicated on the scale. For instance, half-tones finer than 150 line screen are charged 25 per cent. additional to scale ; vignetted or outline half-tones 50 per cent. extra to scale, and so on. Indeed the whole of the charges with the exception of those based entirely on time work are worked out at a definite percentage of the scale price.

This scale has been working for some years now in the United States, and Mr. Louis Flader, the Commissioner and Organiser of The American Photo-Engravers' Association, told me personally that they considered the adoption of the selling scale was the finest piece of work their Association had accomplished, and that it had met with, and still has, the universal approval and approbation, not only of the Process Engravers themselves, but of all process block users.



THE PROCESS MONTHLY.

Having seen the great advantages gained by the use of the American method of charging by their ruled printed scale, I wish to definitely put forward the proposal that the British process-engravers consider the possibility of following a similar plan in this country, and suggest that this might be done by adopting either one of the two following methods :—

(1) A selling scale similar to the American to be prepared based almost precisely on the existing rates as per our schedule of minimum prices, and I think practically all the present rules and regulations could be embodied in such scale ; and/or

(2) To abandon our present methods of charging on the basis of a 14in. minimum with two or more to a minimum, and our various complications with regard to blocks containing several subjects, etc., and adopt instead a proposal which you, Mr. Editor, put forward some time ago, and which was, doubtless, based on the American method, viz., the adoption of a smaller minimum, say, of 5in.

I think to make this latter practical, if we were dealing with line work at 6d. per square inch we should have to charge a minimum of, say, the first 5in. at 9d., and 6d. per square inch afterwards. I only mention these figures to show the principle involved, and not necessarily to indicate the price to be charged.

It should perhaps be explained that a separate scale is used for colour work, based on precisely the same idea, with the price of 4-colour blocks printed in black ink in each $\frac{1}{4}$ in. square ; the price of 3-colour blocks in red ink, while 2-colour blocks are taken at 40 per cent. or $\frac{2}{5}$ of the price charged for 4-colour blocks. I only mention the colour scale at this juncture so as to show that the same method is applicable.

Having described the method which I suggest might with advantage be adopted in this country, perhaps I might leave the matter at this stage, and give a cordial invitation to members of the trade to correspond through the medium of your columns and to ask any questions which may be deemed desirable.

Yours faithfully,

D. GREENHILL.

St. Bride Foundation.

N his retirement from the Chairmanship of the St. Bride Foundation, after sixteen years' service in that capacity, Mr. C. J. Drummond, M.B.E., J.P., has been presented by his fellow-Governors with a beautifully illuminated address to "mark the able and conspicuous services he has rendered to the Foundation not only during his sixteen years' tenure of office as Chairman, but during the whole of his service as a Governor since the Foundation was instituted." A life-size portrait of Mr. Drummond has been hung in the Board Room.

An Australian Exhibition.

IT is intended to hold an All-Australian Exhibition in Adelaide from March 26th to May 22nd, 1920. The exhibitoin will consist of works of artists, manufacturers, producers, mechanics, and all other sections of industries in which the Commonwealth is engaged. While the exhibition is confined to Austrahan manufactures, the committee would, from an educational point of view, be prepared to make provision for the display of new inventions, etc., from the United Kingdom.

THE FEDERATION OF MASTER PROCESS ENGRAVERS

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MR. G. B. MANLEY,
80A Coleman Street,
London, E.C.

Telephone: 5596 Bank.

Telegrams: "Secreteau, Cannon, London."

The Council sits nearly every Monday afternoon, at 2.30. Communications for the same should be in the Secretary's hands by first post on Monday morning.

The First Monday in each month will be an open Sitting. Members of the Federation who desire to interview the Council will be welcomed.

The Trade Meeting.

THE great event of the month so far as the Process Trade is concerned was the aggregate meeting of the Trade called together by the Council to give careful consideration to the request preferred by the Men's Society for a further increase of 15/- per week in their wages.

The demand had come something in the nature of a surprise, for though there had been rumours of some such movement, it was hoped that the last increase given would be the final one and that things would so stabilise themselves that there would not be any need for further increases. In this supposition evidently we were mistaken. When rumour reported that provincial printers had given their work-people an increase and that the London Printers' Societies were also clamouring for a 15/- increase, it meant certainly that process engravers would also put in a similar claim; this turned out to be true, so that when it came to hand the Council at once arranged an interview with the deputation from the men's Society to discuss the matter and see what grounds there were for the demand and to learn in what way it could be regulated or met. As usual, the demand was put forward on the ground of increased cost of living. Mr. Kneale, of the Men's Society put forward his case as briefly as possible and argued from the official figures of the Board of Trade that the cost of living had gone up to a greater extent than the monetary increase they were asking for. Whether the

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figures issued by the Board of Trade are reliable or not we of course cannot say, though many have very great doubts about them; but, for all that they are there and are the official figures issued for the guidance of the country's business, consequently they have to be accepted as fact and dealt with accordingly.

The deputation put their case exceedingly well and shewed that it was really necessary to press for the increase in question, for not only were matters in the position shewn, but it became more and more difficult every day for the worker to maintain himself in a decent position upon the existing wage.

So much for the workers' side; but on the other hand, if wages continue to be forced up in this way what is to become of the trade, was the position taken up by the employers, for it was felt it would be worse than useless to keep forcing up prices, so that it became imperative for the users of illustrations to treat them as a luxury, thus causing a very greatly diminished demand with the corollary of a great percentage of the workers unemployed, therefore it was in the best interests of the workers themselves to consider whether it was best to have a few men employed at a good wage, or the majority of the men employed at a more moderate wage; in the opinion of the employers the latter was the best though it must be admitted the argument did not make much impression upon the deputation, who seemed to feel that the public demand would be too powerful for the economies that might be attempted by the publishers.

Another argument put forward by the employers was that of increased production as in their opinion it is very undesirable to increase the price of Illustration; could not the Men's Society

guarantee a greater output per man so as to compensate for the increased demand and so let the men get the increased wage by putting out more effort and so prevent a rise in price which must inevitably take place if the increased wage is given without an increased output to balance it.

It was evident that the deputation realised the desirability of such a consummation to the proceedings, but though they could clearly see the advantages of such a measure they could not hold out any hope that there would be any increased output as the result of the increasing wage, they therefore realised that the inevitable must take place and that the cost must be passed on to the consumer.

The outcome of the deliberations was the calling of the Trade meeting at which the whole case was laid before those present, for it was their duty to come to the momentous decision for the Trade as to whether—

An increase should be granted.

If so, what should that increase be.

How can that increase be met.

The Meeting was a very representative one, members coming from every part of the country, the far north being well represented.

The President fully explained the position to the meeting, announced the recommendations of the Council and left the meeting to discuss the question as fully as it chose; there was no idea of curtailing discussion for it was felt that the matter was of such great importance that it must be viewed from every point if a decision that was fair and just to all should be arrived at.

It need hardly be said that it was felt that the demand was extremely unfortunate and should, if possible, be resisted,

for it was felt that these repeated demands were coming far too quickly upon each other ; on the other hand there was an evident desire to consider the men's point of view as well as that of the employer, there was a consensus of opinion that those employed in Process shops should be generously paid for the work they produce, so long as they do not make it an impossibility to carry on the business successfully.

After considerable discussion, an increase that was felt to be fair and reasonable was decided upon and a definite

reached so high a standard that nothing more must be added to them that would jeopardise the position more than absolutely needful ; with this view constantly before them the Trade Meeting at length came to a happy conclusion by which prices will be raised that will average somewhere about a halfpenny to one penny per square inch, which it is estimated will just about cover the actual cost of the increase in wages, but will not allow the process engraver any additional profit.

easiest manner possible and withall
~~Much as it was felt that users of Illus-~~

Pages 183-186 formed the Title-page
and Index.

the Engraving Trade, especially seeing that, when the last increase of 5/- per week was given the men, the employers decided to shoulder the burden themselves, and see whether economies and the expected reduction in materials would reimburse them ; in this they had been disappointed so that it was quite an impossibility to meet the increase in a similar way and as the men's representatives had assured us they could not hold out any hopes of increased production, there seemed but one way in which the loss could be met, that is by passing it on to the customer.

In what way it should be passed on called for very considerable attention, for it was felt that prices had already

At the conclusion of this, the special purpose for which the meeting was called Mr. D. Greenhill, our Vice-President, who has just returned from America gave a short explanation of the system of charging he found in use in that country. The American Process Engravers have worked out a scale shewing the exact price of every block of every imaginable size from the minimum up to about 200 inches, the block is of course measured according to the size of the mounts so that by merely laying the block upon the scale you have in the upper right hand corner section the correct price for that block.

The use of a scale such as this obviates the necessity of calculating, first the number of inches contained, then working

THE PROCESS MONTHLY.

another sum by which to ascertain the value, both of which efforts consume a great deal of time, but this is all done automatically by the scale.

Of course the objection will be raised by some that the measuring on the back of the plate is not fair and is not business-like, yet these same folk do not object to the Electrotypers charging in this fashion and readily pay for their electros when so charged; moreover, there can be nothing unfair in this charging if, when the scale is prepared, the flange is taken into account in the calculation and the price is stated accordingly.

It was very evident that those present were quite enamoured of the system and many wanted to know why it could not be put into force immediately, but it was felt by others that it was best to make haste slowly, so the question has to be further considered at the next Annual Meeting. In the meantime Mr. Greenhill will further expound the system in these pages so that every member of the Federation may get a complete knowledge of it and come to the Annual Meeting to give his vote either for or against the innovation, an innovation however, that makes for accuracy and economy in the Office and enables the customer to check his invoice in the easiest manner possible and withal replaces our present formidable scale with a scale at once clear and convincing and of inestimable value to all concerned.

It is never too late to mend a faulty system of doing business.

No cost system in your office yet? You out-of-date dub, get busy or the sheriff will have you.

The surest way to eliminate competition is to let your competitor have the competitive printing.

A Bonus for Increased Production.

II.

THE interest evinced in the question dealt with in our last issue has prompted us to print the following article from the pages of "Ways and Means." It treats of the subject as worked out in the business of Messrs. Priestman, and deals with one phase of the Bonus question and shews how it has been most successfully employed in the business in question:—

The Priestman System may be best described as the application of team-work to industry. The piece-work system may get the best out of a single individual, but it can never get the best out of a number of individuals.

The scheme is based upon the principle that if a number of men on ordinary day rates of pay in a given time are accustomed to produce a certain quantity of finished machinery, called the "standard," then if, without adding to the number of men employed or the hours worked, by greater individual effort the output is increased, the day rate wage can be supplemented by a percentage equivalent to that by which the actual output exceeds the standard. The first important point is that the scheme accepts the present view of of trade unionists that the proper method of payment is a standard wage for a standard day. All the men employed under the Priestman scheme are paid day rates, and receive, as a minimum, the full rates, plus any bonus or other additions which may be part of the agreed union rate of payment for the class of labour for the district.

In the works there are represented no

less than nine trade unions, and there are as many grades of labour and rates of pay. Every man works to trade union rules, and every man receives the flat rate of pay which is arranged, from time to time between the unions and the employers in the respective trades. Calculating on this basis, a careful estimate was made of the amount of work produced by a given number of men in the year 1916, and in this way a standard output was established.

If, in the current month, forty thousand hours are worked, a simple calculation gives the standard output proper to that month. This standard output, it should be noted, has been arrived at by the management in collaboration with a shops' committee upon which the trade unions are represented. The books showing the daily deliveries are open to the inspection of this committee, and many details are talked over with them. The Priestman System does not ask that the worker should accept any figure without examination, and the shops' committee accept the figures as correct before the monthly returns are posted in the works.

It should be noted here that this does not mean the disclosure to the workers of any information which is the private property of the employers. In the Priestman case the agreed standard is given in terms of tonnage, and the committee have no knowledge of values; but, even if the output were measured by money, the figures given to the committee are not concerned with costs or profits, and therefore place that committee in possession of no information, excepting that which is necessary for the proper verification of the working of the system.

Having in this way arrived at a standard, the system provides that if at any time that standard is exceeded wages shall

rise in proportion. The output has, in practice, risen as much as 80 per cent., and the average increase has been 40 per cent., so that wages have been increased, month by month, by percentages reaching in odd months, so high as 80 per cent. The output is calculated month by month, and the increase in wages is applied to the following month. Thus, if the output for April is 50 per cent. above the standard, the wages for May are increased accordingly on what was earned in April.

This brings us to the most interesting part of the scheme, the only portion of the scheme which is new, the part in which it differs essentially from any scheme of payment by results yet invented. The increased wage is not paid to the individual worker according to his individual work. No man gets a higher percentage than any other, and every man shares in the percentage. It is not confined to the skilled workers; the highly trained fitter receives the same percentage as the labourer or the errand boy. The benefit is not restricted to the labourers alone, but extends from the bottom to the top. It applies to the messengers equally with the managers. Everyone in the establishment who receives a wage for his services benefits from the declaration of a dividend. If output for April goes up 50 per cent., the boy whose wage is £1 a week gets £1 10s. a week during May, and the manager whose wage is £10 a week gets £15 a week for the month of May. This is the essence and the charm of the whole scheme: it is the secret of its success: it is the new discovery which it has made.

The output of a factory may be improved by the individual efforts of an odd man here and there who puts his back into things; but, in most cases, it is quite

THE PROCESS MONTHLY.

useless for the skilled mechanic to bother about output unless the labourer who brings him his materials and the men who take away his product are also prepared to keep pace with him. When a works is divided into shops, and when output depends upon numerous processes, it is useless for one shop to be efficient if the shop in front or the shop behind is dilatory or slack. The system realises that the greatest efficiency is only to be secured by the willing co-operation of every person employed in an establishment. It has discovered that the draughtsman or the typist, the time-keeper or carman, can each exercise an influence upon the efficiency of the establishment, its smooth working and its output.

The Priestman Scheme by giving to every living person in the works a direct pecuniary interest in the efficiency of the whole personnel, has swept away all these difficulties at a stroke. It has introduced into the industrial sphere the spirit of the cricket field. The men and women work not as individuals, but as a team: the interests of the whole are the interests of each; and the interests of the employers and employed are absolutely and evidently identical.

The charm about the Priestman System is that it produces more per man than was ever produced by the piece-work plan, and the production is secured without any over-effort on the part of the individual worker. Priestman's have discovered that the mere alteration of the point of view of a body of workers is sufficient in odd months to add 80 per cent. to the output, without the need for one of them to put forward undue physical or mental strain.

The system might indeed be described

as a mere alteration in the point of view or in the frame of mind. It creates a body of willing workers with a common interest, in place of a body of unwilling workers with the lack of interest which comes from a sense of injustice or lack of equity.

It is not possible in the course of a brief article to go into all the technical details of the calculations which, of course, form the basis upon which the system works. It has been applied to an engineering establishment which produces a great variety of work, ranging from the heaviest castings to the smallest mechanisms. In order to get at a figure which shall be generally accepted it has been necessary to agree that the committee of management should draw up suitable schedules setting out the number of "points" which shall be credited to each class and each weight of work. A system of allowances for work brought in, and of special calculations for repair work, has been set up, and other figures have been compiled, by means of which all parties are able to arrive at the proper figure to put upon the output.

Priestman's found that it would simplify the introduction of this system to work the scheme by weight, and the percentage is paid upon the total tonnage produced. These, however, are mere details, and it would be incorrect to give the impression that this system of payment by results is necessarily associated with elaborate arithmetical calculations or that it necessitates a detailed or complicated system of booking and checking. The whole thing can be dealt with very simply in this way. Every business has some leading object: it may be tons; or galloans, or economy of material. It must in every business be possible to measure the achievement of this leading object in

miles, or pounds, or something. Therefore the principle of the Priestman System can be applied by making wages move in proportion as the aim of the business is accomplished.

The success of a gas undertaking may depend upon the economical use of coal, and the wages of the workers might, very reasonably increase in proportion as this aim is achieved.

The success of a Bakery business may be most easily measured by the number of sacks of flour received, and the wages might conceivably be regulated by this standard.

Whatever the business it should be possible to give to all those engaged in it some interest in the leading consideration that affects the success of the business.

Several other points must be mentioned. It has been noted that the standard has been reduced down to a certain figure per manhour. This point is important, because the reader must be asking what happens when short hours are worked. Periods must arise when, for various reasons, it is impossible to maintain the whole staff at work the full day and the full week. The reduction of the standard to a man-hour basis answers this question. If the standard output is one ton per hour, and the actual output 25 cwt. per hour worked, then the standard of wages for the shorter days are increased by 25 per cent. This may appear to present difficulties, but in practice it has worked well.

The essence of the economical factory running is to get the maximum output in the minimum time. If the output which has hitherto taken twelve hours to produce can be secured in eight hours, then there is a 30 per cent. economy in most of

the costs and overhead charges associated with the running of the factory.

The reader may enquire what happens when output goes down. The answer is that, in all the experience so far gained of this system, that contingency has not arisen. It is, however, necessary to state that the bargain with the workers is for the payment of the full union rate in any event. A decrease in the output would not, therefore, bring the workers below their proper standard rate for the district. It should further be added, for the sake of accuracy, that in introducing this system Messrs. Priestman Brothers showed their faith in it by giving to all of their workers a 10 per cent. advance, irrespective of output. This was a concession which appears to have worked extremely well, but which seems to us to be no part of the system. It may, however, have been wise—it was certainly generous—on the introduction of a new system for the first time to a body of men, who, very naturally, at its inception, looked upon it with suspicion.

While the full scheme of payment by results, as here described, has so far been worked only by its inventors in their own factory, it has been adapted, for short periods, to the work of several other establishments. These were munition factories, which have since closed down, and the results obtained did not, therefore, possess the value of the prolonged experiment at Hull. It may, however, be mentioned, that in one shell factory the system had the immediate effect of increasing the output from 25 thousand to 75 thousand shells per week; three times the quantity was actually produced by the same workers with the same equipment, and under the same conditions, and without any increase of hours. Other instances with similar results are available.

THE PROCESS MONTHLY.

THE current issue of the *NORTHERN*, the house organ of the Northern Engraving Company has many good things to say about the trade and of course about its particular branch of it. It is as usual bright and cheerful and claims the attention of those for whom it is specially produced.

THE *COMMERCIAL ARTIST* for October is one of the best numbers we have had the pleasure of seeing, the cover is a most arresting one, drawn by Maynard Dixon and produced in 3 colours, while the contents are extremely interesting and varied; it reflects very great credit upon those responsible for its production.

THE *ECLIPSE*, the house organ of the Eclipse Engraving Company of Cleveland, is as usual full of good things. We have often referred to this publication and feel that its Editor, Mr. W. H. Baker, must be something of a genius to produce so constantly something at once useful and attractive.

PARAGRAPHS is an interesting monthly issued in the interests of the Whittaker Paper Company of Cincinnati. It is always well got up, well printed and well illustrated. Why is it that the leading paper houses of this country do not take similar means to boost their wares, we think it would pay them.

THE *ST. BRIDE'S BULLETIN* is as bright and breezy as usual, the students are surely to be congratulated in having such an issue to provide stimulus and instruction, and the opportunity of comparing notes, and from what we hear they appreciate it to the full.

Mr. Edgar Yates, of Chicago, sends us some specimens of his work in hand lettered advertisements; he evidently has a very refined taste for this class of work and will undoubtedly be in greater quest as his work becomes more widely known. It seems a pity he cannot be of use to advertisers in this country, many of whom would be pleased to have the opportunity of entrusting certain classes of work to an artist with so clear an idea of what is required in a refined advertisement.

LE *PROCEDE*, edited by H. Calmets, of Paris, has again made its appearance. Like so many other magazines of its class, it ceased publication during the war, but with the return of Peace it once more made its appearance and we are pleased to give it a right hearty welcome and trust its usefulness may continue to increase as the years pass along.

DRILL CHIPS is the quaint title of the house organ of the Cleveland Twist Drill Company; its special feature is to say a good word for the Company's products. This

it does by suggestion, as most of the contents are written in the American story style, but for all that Drills crop up here and there and so keep the mind from wandering. It is as usual well illustrated and well printed; the illustrations of the drills reflect great credit upon the block makers.

THUMB TACK, the little monthly brochure issued by the Southern California Commercial Artists' Association retains all its good qualities; time does not impair its originality and value. Commercial Artists in this country would do themselves a service by becoming subscribers to it, it is only 1 dollar per annum.

By the way, what was it that startled the editor in one of our notices. He has evidently come to the conclusion that the "Artists" and his "breezy talks" are one. Had he not better try again? His Artists would be welcome here, but our customers would rub their eyes if we addressed them in a similar style to his breezy talk; but does he mean what he says?

A. W. JAQUISH, of West 33rd St., New York, sends us a few specimens of designing for fine book catalogues, and most surely they are very choice works of art.

There is nothing showy or out of place about them, they are pleasing, noble, dignified, and have that subtle charm about them that makes an irresistible appeal to the reader.

We print on another page a short article on Bookmaking by this Artist, and feel sure our readers will be very pleased to have the opportunity of considering his views.

THE DU BOIS PRESS send us a copy of the Hickey Freeman Co. Style Book, recently produced by them. The issue reflects great credit upon the Du Bois Press, for it is printed in excellent style; the entire get up is really first class and most attractive, the colour illustrations being specially well produced. A very choice piece of work.

WE have received from Messrs. Jordan & Sons, of Chancery Lane, copies of "Reminders for Company Secretaries," 4th Edition, and "Private Companies: Their Utility and the Exemptions they enjoy," 9th Edition.

The fact that these valuable treatises have reached so many editions in so short a time speaks volumes for the need for them, but what is more to the point they are as valuable as they are popular and we have no doubt the present editions will soon be exhausted. They are published at 1/- and 1/4 respectively, and are sent post free.

THE PROCESS ENGRAVER'S MONTHLY

ELECTROTYPERS'
AND

STEREOTYPERS'
REVIEW.

THE OFFICIAL ORGAN OF THE FEDERATION OF MASTER PROCESS ENGRAVERS.

Vol 25. No. 288.

Founded by the late H. SNOWDEN WARD, F.R.P.S.

JANUARY, 1918.

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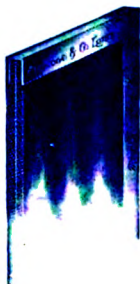
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New Zealand:—MIDDOWS BROS. & TAYLOR, Ltd., Wellington.

Every process-engraver should read this book in order to understand the principles underlying the photography of colours.

The Photography of Coloured Objects

Second Edition

Price 1/- (Postage 3d.)

This revised edition includes most of the matter contained in the first edition, together with much of that contained in Dr. Mees' "Orthochromatic Filters."

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